

## Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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Miscellaneous 2% at 55 Risk Pool  
as of June 30, 2007



## TABLE OF CONTENTS

<b>ACTUARIAL CERTIFICATION</b>	1
<b>HIGHLIGHTS AND EXECUTIVE SUMMARY</b>	
Purpose of Section 2	5
Risk Pool's Required Employer Contribution	5
Risk Pool's Required Base Employer Rate	5
Funded Status of the Risk Pool	6
Cost and Volatility	6
Changes Since the Prior Valuation	7
Subsequent Events	7
<b>SUMMARY OF LIABILITIES AND RATES</b>	
Development of Pool's Accrued and Unfunded Liabilities	11
(Gain)/Loss Analysis 06/30/06 - 06/30/07	12
Schedule of Amortization Bases for the Risk Pool	13
Development of Risk Pool's Annual Required Base Contribution	14
Pool's Employer Contribution Rate History	15
Funding History	15
<b>SUMMARY OF ASSETS</b>	
Reconciliation of the Market Value of Assets	19
Development of the Actuarial Value of Assets	19
Asset Allocation	20
<b>SUMMARY OF PARTICIPANT DATA</b>	
Source of the Participant Data	23
Data Validation Tests and Adjustments	23
Summary of Valuation Data	24
Active Members	25
Transferred and Terminated Members	26
Retired Members and Beneficiaries	27
<b>APPENDIX A</b>	
Statement of Actuarial Data, Methods and Assumptions	
<b>APPENDIX B</b>	
Summary of Principal Plan Provisions	
<b>APPENDIX C</b>	
Classification of Optional Benefits	
Example of Individual Agency's Rate Calculation	
Distribution of Class 1 Benefits	
<b>APPENDIX D</b>	
List of Participating Employers	
<b>APPENDIX E</b>	
Glossary of Actuarial Terms	



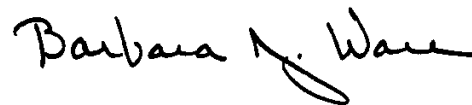
## Actuarial Certification

To the best of our knowledge, this report is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the Miscellaneous 2% at 55 Risk Pool. This valuation is based on the member and financial data as of June 30, 2007 provided by the various CalPERS databases and the benefits under this Risk Pool with CalPERS as of the date this report was produced. It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles, in accordance with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for this risk pool, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

The undersigned are actuaries for CalPERS. Both are members of the American Academy of Actuaries and Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



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## HIGHLIGHTS AND EXECUTIVE SUMMARY

- PURPOSE OF SECTION 2
- RISK POOL'S REQUIRED EMPLOYER CONTRIBUTION
- RISK POOL'S REQUIRED BASE EMPLOYER RATE
- FUNDED STATUS OF THE RISK POOL
- COST AND VOLATILITY
- CHANGES SINCE THE PRIOR VALUATION
- SUBSEQUENT EVENTS





## Purpose of Section 2

This Actuarial Valuation for the Miscellaneous 2% at 55 Risk Pool of the California Public Employee's Retirement System (CalPERS) was performed by CalPERS' staff actuaries using data as of June 30, 2007 in order to:

- set forth the actuarial assets and accrued liabilities of this risk pool as of June 30, 2007
- establish the actuarially required contribution rate of the pool for the period July 1, 2009 through June 30, 2010
- provide actuarial information as of June 30, 2007 to the CalPERS Board and other interested Parties

Use of this report for other purposes may be inappropriate.

## Risk Pool's Required Employer Contribution

(figures net of employee contributions)

	<b>Fiscal Year 2008/2009</b>	<b>Fiscal Year 2009/2010</b>
<b>Contribution in Projected Dollars</b>		
1. Pool's Gross Employer Normal Cost	\$ 63,956,923	\$ 61,181,996
2. Payment on Pool's Amortization Base	3,456,937	3,434,875
3. Payment on Employer Side Funds	<u>20,329,303</u>	<u>16,477,179</u>
4. Total Required Employer Contribution*	\$ 87,746,248	\$ 81,092,517
* Total may not add up due to rounding		

### Contribution as a % of Projected Pay

5. Pool's Gross Employer Normal Cost	8.302%	8.352%
6. Payment on Pool's Amortization Base	0.449%	0.469%
7. Payment on Employer Side Funds	<u>2.639%</u>	<u>2.249%</u>
8. Total Required Employer Contribution	11.390%	11.070%

These rates are the total required employer contributions by the pool for fiscal years 2008/2009 and 2009/2010. The Pool's Gross Employer Normal Cost includes the Class 1 surcharges for all employers that actually contract for the Class 1 type benefits. The payment on the pool's amortization base is the payment on the ongoing cumulative gains and losses experienced by the pool since its June 30, 2003 inception. The payment on employer side funds is the combination of all expected individual amortization payments on every side fund in the pool.

## Risk Pool's Required Base Employer Rate

	<b>Fiscal Year 2008/2009</b>	<b>Fiscal Year 2009/2010</b>
1. Pool's Gross Employer Normal Cost	8.302%	8.352%
Less: Surcharges for Class 1 Benefits	<u>0.623%</u>	<u>0.632%</u>
2. Pool's Net Employer Normal Cost	7.679%	7.720%
3. Payment on Pool's Amortization Base	<u>0.449%</u>	<u>0.469%</u>
4. Pool's Base Employer Rate	8.128%	8.189%

The base employer contribution rate is the rate that each plan within the pool starts with and pays before any adjustments are made. It represents the pool funding for basic benefits (no Class 1 surcharges) for the fiscal year shown. To arrive at a plan's total contribution rate, several components must be added to this base rate.

## HIGHLIGHTS AND EXECUTIVE SUMMARY

These components are Class 1 benefit surcharges, normal cost phase-out and any side-fund payment. More information about those additional components can be found in Section 1 of this report.

## Funded Status of the Risk Pool

	June 30, 2006	June 30, 2007
1. Entry Age Normal Accrued Liability	\$ 2,754,396,608	\$ 2,611,746,790
2. Market Value of Assets Including Side Funds (MVA)	\$ 2,636,941,527	\$ 2,756,866,680
3. Funded Ratio (MVA) [(2) / (1)]	95.7%	105.6%

## Cost and Volatility

### Actuarial Cost Estimates in General

What will this pension plan cost? Unfortunately, there is no simple answer. There are two major reasons for the complexity of the answer:

First, all actuarial calculations, including those in this report, are based on a number of assumptions about the future.

- There are demographic assumptions about the percentage of employees that will terminate, die, become disabled, and retire in each future year.
- There are economic assumptions about future salary increases for each active employee, and the assumption with the greatest impact, future asset returns at CalPERS for each year into the future until the last dollar is paid to current members of your plan.

While CalPERS has set these assumptions as our best estimate of the real future of your plan, it must be understood that these assumptions are very long term predictors and will surely not be realized in each year as we go forward. For example, the assumption for investment return is 7.75% per year. The actual asset earnings for the past 15 years at CalPERS have ranged from -7.2% to 20.1% while the 15-year compound return has been 10.4%.

Second, the very nature of actuarial funding produces the answer to the question of plan or pool cost as the sum of two separate pieces:

- The Normal Cost (i.e., the future annual premiums in the absence of surplus or unfunded liability) expressed as a percentage of total active payroll, and
- The Past Service Cost (i.e., Accrued Liability – representing the current value of the benefit for all credited past service of current members) which is expressed as a lump sum dollar amount.

The cost is the sum of a percent of future pay and a lump sum dollar amount (the sum of an apple and an orange if you will). To communicate the total cost, either the Normal Cost (i.e., future percent of payroll) must be converted to a lump sum dollar amount (in which case the total cost is the present value of benefits), or the Past Service Cost (i.e., the lump sum) must be converted to a percent of payroll (in which case the total cost is expressed as the employer's rate part of which is permanent and part temporary). Converting the Past Service Cost lump sum to a percent of payroll requires a specific amortization period. So, the plan or pool rate can be computed in many different ways depending on how long one will take to pay for it. And as the first point above states; all of these results depend on all assumptions being exactly realized.

### Rate Volatility

As is stated above, the actuarial calculations supplied in this communication are based on a number of assumptions about very long term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year to year basis. The year to year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise the plan or pool's rates from year to year. Therefore, the rates will inevitably fluctuate, especially due to the ups and downs of

## HIGHLIGHTS AND EXECUTIVE SUMMARY

investment returns. Plans or pools that have higher asset to payroll ratios produce more volatile employer rates. In the table below we have shown your volatility index, based on your retirement formula, a measure of the plan's potential future rate volatility. We are disclosing the ratio of accrued liability to payroll, rather than assets to payroll because the desired state for any plan or pool is to be 100% funded (i.e., with assets equal to accrued liability). It should be noted that this ratio increases over time but generally tends to stabilize as the plan or pool matures. For purposes of comparison, we have also included the average volatility index for all plans with the same retirement plan as yours.

Beginning with the June 30, 2004 actuarial valuation, rate stabilization methodologies were implemented. Although there is no method that can provide perfectly stable rates, the new methods have been shown to be very effective in mitigating rate volatility. It continues to be true that a plan that has a volatility index that is three times the index of a second plan will have three times the volatility in rates as compared to the second plan. However, the amount of change has been dramatically reduced through the rate stabilization process. In most situations, the new rate stabilization policies will reduce rate volatility due to actual gains and losses by about 50%.

	<b>As of June 30, 2007</b>
Accrued Liability	\$ 2,611,746,790
Payroll	665,522,859
Volatility Index	3.9
Average Volatility Index for All Plans With 2.0% @ 55	4.8
Miscellaneous Retirement Formula (includes Pooled and non-pooled plans)	

## Changes since the Prior Valuation

### Actuarial Assumptions

There were no changes in actuarial assumptions since the prior year's actuarial valuation with the possible exception of changes due to reflect a change in benefits.

### Actuarial Methods

There were no material changes in actuarial methods since the prior year's actuarial valuation.

### Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation whose valuation date follows the effective date of the legislation. Voluntary benefit changes by employers within the risk pool are generally included in the first valuation whose report is dated after the amendment becomes effective. These voluntary changes are included in the liabilities reported in this valuation.

The valuation generally reflects plan changes by amendments effective prior to August 1, 2008. Please refer to Appendix B for a summary of the plan provisions used in this valuation report. The provisions in Appendix B do not indicate the class of benefits voluntarily contracted for by individual employers within the risk pool. Refer to Section 1 of the valuation report for a list of your specific contracted benefits. The increase in the pool's unfunded liabilities due to Class 1 or 2 amendments by individual employers within the pool is embedded in the Liability (Gain) / Loss shown in the Gain / Loss section of this report. This amount, however, is offset by additional contributions through a surcharge for employers who voluntarily contract for those benefits.

## Subsequent Events

There were no significant subsequent events to report in this valuation.



## SUMMARY OF LIABILITIES AND RATES

- DEVELOPMENT OF ACCRUED AND UNFUNDED LIABILITIES
- (GAIN)/LOSS ANALYSIS 06/30/06 - 06/30/07
- SCHEDULE OF AMORTIZATION BASES FOR THE RISK POOL
- DEVELOPMENT OF RISK POOL'S ANNUAL REQUIRED BASE CONTRIBUTION
- POOL'S EMPLOYER CONTRIBUTION RATE HISTORY
- FUNDING HISTORY



## Development of Accrued and Unfunded Liabilities

	<b>June 30, 2006</b>	<b>June 30, 2007</b>
1. Present Value of Projected Benefits		
a) Active Members	\$ 2,176,778,342	\$ 2,055,623,278
b) Transferred Members	311,687,973	281,192,053
c) Separated Members	127,417,217	119,350,117
d) Members and Beneficiaries Receiving Payments	<u>1,028,712,070</u>	<u>1,001,386,031</u>
e) Total	\$ 3,644,595,602	\$ 3,457,551,479
2. Present Value of Future Employer Normal Costs	\$ 470,920,014	\$ 448,650,338
3. Present Value of Future Employee Contributions	\$ 419,278,980	\$ 397,154,351
4. Entry Age Normal Accrued Liability		
a) Active Members (1a - 2 - 3)	\$ 1,286,579,348	\$ 1,209,818,589
b) Transferred Members (1b)	311,687,973	281,192,053
c) Separated Members (1c)	127,417,217	119,350,117
d) Members and Beneficiaries Receiving Payments (1d)	<u>1,028,712,070</u>	<u>1,001,386,031</u>
e) Total	\$ 2,754,396,608	\$ 2,611,746,790
5. Actuarial Value of Assets (AVA)	\$ 2,492,226,176	\$ 2,391,434,447
6. Unfunded Accrued Liability (4e - 5)	262,170,432	220,312,343
7. Side Funds (AVA)	\$ (211,050,603)	\$ (166,484,889)
8. Actuarial Value of Assets excluding Side Funds (5 - 7)	2,703,276,779	2,557,919,336
9. Unfunded Liability excluding Side Funds (4e - 8)	51,119,829	53,827,454
10. Market Value of Assets (MVA)	\$ 2,636,941,527	\$ 2,756,866,680
11. Funded Ratio (MVA) (10 / 4e)	95.7%	105.6%

## SUMMARY OF LIABILITY AND RATES

### (Gain)/Loss Analysis 06/30/06 - 06/30/07

We introduced the concepts of Actuarial Gains and Losses in the Cost and Volatility Section of this report. To reiterate, when we calculate the cost requirements of your plan, we use assumptions about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is contrasted against the expected experience based on the actuarial assumptions. The differences are reflected below as your pool's actuarial gains or losses.

<b>1. Total (Gain)/Loss</b>		
a) Unfunded Liability/(Surplus) as of June 30, 2006	\$	51,119,829
b) Expected payment on the unfunded liability		1,317,655
c) Interest accumulation $[(.0775 \times (1a) + ((1.0775)^{.5} - 1) \times (1b)]$		3,911,680
d) Expected Unfunded Liability before other changes $[(1a) - (1b) + (1c)]$		53,713,854
e) Change due to change in actuarial methods		0
f) Expected Unfunded Liability after changes $[(1d) + (1e)]$		53,713,854
g) Actual Unfunded Liability/(Surplus) as of June 30, 2007		<u>53,827,454</u>
h) Total (Gain)/Loss $[(1g) - (1f)]$	\$	113,600
<b>2. Contribution (Gain)/Loss</b>		
a) Expected contribution	\$	136,495,672
b) Expected interest on contributions		<u>5,190,518</u>
c) Total expected contributions with interest $[(2a) + (2b)]$	\$	141,686,190
d) Actual contributions		156,832,103
e) Expected interest on actual contributions		<u>5,963,850</u>
f) Total actual contributions with interest $[(2d) + (2e)]$	\$	162,795,953
g) Contribution (Gain)/Loss $[(2c) - (2f)]$		(21,109,763)
<b>3. Asset (Gain)/Loss</b>		
a) Actuarial value of assets June 30, 2006	\$	2,492,226,176
b) Contributions received		156,832,103
c) Benefits and refunds paid		(101,409,260)
d) Other transfers, miscellaneous adjustments and lump sums		(1,830,182)
e) Expected interest $[(3a) \times .0775 + \{(3b) + (3c) + (3d)\} \times (1.0775^{.5} - 1)]$		195,185,495
f) Transfers into the pool (AVA Basis)		15,774,695
g) Transfers out of the pool (AVA Basis)		<u>(400,993,575)</u>
h) Expected actuarial value of assets June 30, 2007 [Sum (3a) through (3g)]	\$	2,355,785,452
i) Actual actuarial value of assets June 30, 2007		2,391,434,447
j) Asset (Gain)/Loss $[(3h) - (3i)]$		(35,648,995)
<b>4. Liability (Gain)/Loss</b>		
a) Total (Gain)/Loss (1h)	\$	113,600
b) Contribution (Gain)/Loss (2g)		(21,109,763)
c) Asset (Gain)/Loss excluding side fund (3j)		<u>(35,648,995)</u>
d) Liability (Gain)/Loss $[(4a) - (4b) - (4c)]^*$	\$	56,872,358

\* Includes (Gain)/Loss on plans transferring into the pool.



## SUMMARY OF LIABILITY AND RATES

### Schedule of Amortization Bases for the Risk Pool

The schedule below shows the development of the payment on the Pool's amortization bases used to determine the Total Required Employer Contributions. Each row of the schedule gives a brief description of a base (or portion of the Unfunded Actuarial Liability), the balance of the base on the valuation date, and the number of years remaining in the amortization period. In addition, we show the expected payments for the two years immediately following the valuation date, the balances on the dates a year and two years after the valuation date, and the scheduled payment for fiscal year 2009-2010. Please refer to Appendix A for an explanation of how amortization periods are determined.

Reason for Base	Amortization Period	Balance on June 30, 2007	Expected Payment 07-08	Balance June, 30 2008	Expected Payment 08-09	Balance June, 30 2009	Scheduled Payment for 2009-2010	Payment as a percentage of payroll
(GAIN)/LOSS	30	\$24,006,955	\$265,536	\$25,591,860	\$1,529,466	\$25,987,602	\$1,560,581	0.213%
PAYMENT (GAIN)/LOSS	30	\$(301,673)	\$352,782	\$(691,250)	\$677,960	\$(1,448,562)	\$(86,987)	(0.012%)
FRESH START	27	<u>\$30,122,172</u>	<u>\$1,839,753</u>	<u>\$30,546,927</u>	<u>\$1,899,545</u>	<u>\$30,942,535</u>	<u>\$1,961,281</u>	<u>0.268%</u>
<b>Total</b>		<b>\$53,827,454</b>	<b>\$2,458,071</b>	<b>\$55,447,537</b>	<b>\$4,106,971</b>	<b>\$55,481,575</b>	<b>\$3,434,875</b>	<b>0.469%</b>

## Development of Risk Pool's Annual Required Base Contribution

	Fiscal Year 2008/2009	Fiscal Year 2009/2010
<b>1. Contribution in Projected Dollars</b>		
a) Total Normal Cost	\$ 117,074,603	\$ 111,661,538
b) Employee Contribution	53,117,680	50,479,542
c) Pool's Gross Employer Normal Cost (1a – 1b)	63,956,923	61,181,996
d) Total Surcharges for Class 1 Benefits	4,799,466	4,629,672
e) Net Employer Normal Cost (1c – 1d)	59,157,457	56,552,324
f) Payment on Pool's Amortization Base	\$ <u>3,456,937</u>	\$ <u>3,434,875</u>
g) Total Required Employer Contributions (1e + 1f)	62,614,394	59,987,199
<b>2. Annual Covered Payroll as of Valuation Date</b>	\$ 699,897,835	\$ 665,522,859
<b>3. Projected Payroll for Contribution Fiscal Year</b>	\$ 770,379,701	\$ 732,543,059
<b>4. Contribution as a % of Projected Pay</b>		
a) Total Normal Cost (1a / 3)	15.197%	15.243%
b) Employee Contribution (1b / 3)	6.895%	6.891%
c) Pool's Gross Employer Normal Cost (1c / 3)	8.302%	8.352%
d) Total Surcharges for Class 1 Benefits (1d / 3)	0.623%	0.632%
e) Net Employer Normal Cost (1e / 3)	7.679%	7.720%
f) Payment on Pool's Amortization Base (1f / 3)	0.449%	0.469%
g) Total Required Employer Contributions (1g / 3)	8.128%	8.189%

## Pool's Employer Contribution Rate History

Valuation Date	Net Employer Normal Cost	Total Surcharges for Class 1 Benefits	Gross Employer Normal Cost	Payment on Pool's Amortization Bases	Total Payment On Employer Side Funds	Total Employer Contribution
06/30/2003	7.578%	0.594%	8.172%	0.000%	3.466%	11.638%
06/30/2004	7.646%	0.633%	8.279%	0.218%	2.839%	11.336%
06/30/2005	7.646%	0.646%	8.292%	0.245%	2.875%	11.412%
06/30/2006	7.679%	0.623%	8.302%	0.449%	2.639%	11.390%
06/30/2007	7.720%	0.632%	8.352%	0.469%	2.249%	11.070%

## Funding History

Valuation Date	Accrued Liabilities (AL)	Market Value of Assets (MVA)	Funded Ratio (MVA/AL)
06/30/2003	\$2,596,966,545	\$2,157,162,743	83.1%
06/30/2004	\$2,746,095,668	\$2,420,946,068	88.2%
06/30/2005	\$2,891,460,651	\$2,663,352,304	92.1%
06/30/2006	\$2,754,396,608	\$2,636,941,527	95.7%
06/30/2007	\$2,611,746,790	\$2,756,866,680	105.6%

Valuation Date	Accrued Liabilities (AL)	Actuarial Value of Assets (AVA)	Unfunded Liabilities (UL)	Funded Ratio (AVA/AL)	Annual Covered Payroll	UL As a % of Payroll
06/30/2003	\$2,596,966,545	\$2,372,879,034	\$224,087,511	91.4%	\$725,020,458	30.9%
06/30/2004	\$2,746,095,668	\$2,460,944,656	\$285,151,012	89.6%	\$743,691,970	38.3%
06/30/2005	\$2,891,460,651	\$2,588,713,000	\$302,747,651	89.5%	\$755,046,679	40.1%
06/30/2006	\$2,754,396,608	\$2,492,226,176	\$262,170,432	90.5%	\$699,897,835	37.5%
06/30/2007	\$2,611,746,790	\$2,391,434,447	\$220,312,343	91.6%	\$665,522,859	33.1%

Information shown here is for compliance with GASB No. 27 for a cost-sharing multiple-employer defined benefit plan.



## SUMMARY OF ASSETS

- RECONCILIATION OF THE MARKET VALUE OF ASSETS
- DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS
- ASSET ALLOCATION



## SUMMARY OF ASSETS

### Reconciliation of the Market Value of Assets

1. Market Value of Assets as of June 30, 2006	\$ 2,636,941,527
2. Employer Contributions	94,935,591
3. Employee Contributions	61,896,512
4. Benefit Payments to Retirees and Beneficiaries	(95,821,727)
5. Refunds	(5,022,610)
6. Lump Sum Payments	(564,923)
7. Transfers and Miscellaneous Adjustments	(1,830,182)
8. Investment Return	505,222,443
9. Transfers into and out of the Risk Pool	<u>(444,215,085)</u>
10. Market Value of Assets as of June 30, 2007 (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9)	\$ 2,751,541,546
11. Receivables for Service Buybacks as of June 30, 2007	\$ 5,325,134
12. Market Value of Assets as of June 30, 2007 Including Receivables for Service Buyback	2,756,866,680

### Development of the Actuarial Value of Assets

1. Actuarial Value of Assets as of June 30, 2006	2,492,226,176
2. Employer Contributions	94,935,591
3. Employee Contributions	61,896,512
4. Benefit Payments to Retirees and Beneficiaries	(95,821,727)
5. Refunds	(5,022,610)
6. Lump Sum Payments	(564,923)
7. Transfers and Miscellaneous Adjustments	(1,830,182)
8. Expected Investment Income at 7.75%	<u>195,185,495</u>
9. Expected Actuarial Value of Assets (w/o Pool Transfers) (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8)	\$ 2,741,004,332
10. Market Value of Assets June 30, 2007 (w/o Pool Transfers)	\$ 3,195,756,631
11. Preliminary Actuarial Value of Assets (w/o Pool Transfers) $(9 + (10 - 9) / 15)$	2,771,321,152
12. Preliminary Actuarial Value to Market Value Ratio	86.7%
13. Final Actuarial Value to Market Value Ratio (minimum 80%, maximum 120%)	86.7%
14. Market Value of Assets June 30, 2007	2,751,541,546
15. Actuarial Value of Assets as of June 30, 2007	2,386,109,313
16. Receivables for Service Buybacks as of June 30, 2007	5,325,134
17. Actuarial Value of Assets as of June 30, 2007 Used for Rate Setting Purposes	2,391,434,447

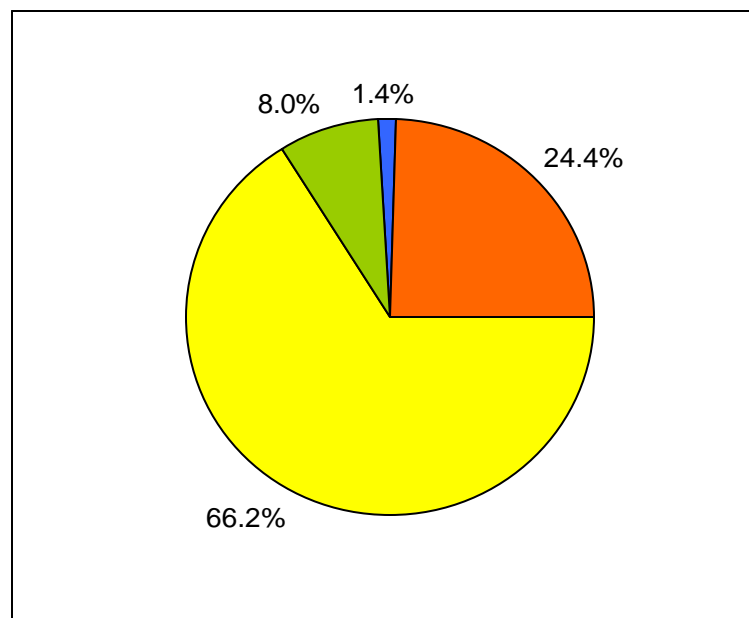
## Asset Allocation

The starting point and most important element of CalPERS' successful return on investment is the asset allocation or diversification among stocks, bonds, cash and other investments. Asset allocation is not an asset-only or liability-only decision. All factors, including liabilities, benefit payments, operating expenses, and employer and member contributions are taken into account in determining the appropriate asset allocation mix. The goal is to maximize returns at a prudent level of risk which presents an ever-changing balancing act between market volatility and long-term goals.

CalPERS follows a strategic asset allocation policy that identifies the percentage of funds to be invested in each asset class.

The asset allocation and market value of assets shown below reflect the values of the Public Employees Retirement Fund (PERF) in its entirety as of June 30, 2007. The assets for Miscellaneous 2% at 55 Risk Pool are part of the Public Employees Retirement Fund (PERF) and are invested accordingly.

(A) Asset Class	(B) Market Value (\$ Billion)	(C) Current Allocation	(D) Target
1) Total Cash Equivalents	3.6	1.4%	0.0%
2) Total Global Fixed Income	61.2	24.4%	26.0%
3) Total Equities	166.5	66.2%	66.0%
4) Total Real Estate	<u>20.1</u>	<u>8.0%</u>	<u>8.0%</u>
Total Fund	251.4	100.0%	100.0%





# SUMMARY OF PARTICIPANT DATA

- SOURCE OF THE PARTICIPANT DATA
- DATA VALIDATION TESTS AND ADJUSTMENTS
- SUMMARY OF VALUATION DATA
- ACTIVE MEMBERS
- TRANSFERRED AND TERMINATED MEMBERS
- RETIRED MEMBERS AND BENEFICIARIES



## Source of the Participant Data

The data was extracted from various databases within CalPERS and placed in a database by a series of extract programs. Included in this data are:

- individual member and beneficiary information,
- employment and payroll information,
- accumulated contributions with interest,
- service information,
- benefit payment information,
- information about the various organizations which contract with CalPERS, and
- detailed information about the plan provisions applicable to each group of members.

## Data Validation Tests and Adjustments

Once the information is extracted from the various computer systems into the database, update queries are then run against this data to correct for flaws found in the data. This part of the process is intended to validate the participant data for all CalPERS plans. The data is then checked for reasonableness and consistency with data from the prior valuation.

Checks on the data include:

- a reconciliation of the membership of the plans,
- comparisons of various member statistics (average attained age, average entry age, average salary, etc.) for each plan with those from the prior valuation,
- comparisons of pension amounts for each retiree and beneficiary receiving payments with those from the prior valuation,
- checks for invalid ages and dates, and
- reasonableness checks on various key data elements such as service and salary.

As a result of the tests on the data, a number of adjustments were determined to be necessary. These included:

- dates of hire and dates of entry were adjusted where necessary to be consistent with the service fields, the date of birth and each other.

## Summary of Valuation Data

	June 30, 2006	June 30, 2007
1. <b>Number of Plans in the Risk Pool</b>	471	437
2. <b>Active Members</b>		
a) Counts	13,269	12,074
b) Average Attained Age	44.72	44.54
c) Average Entry Age to Rate Plan	36.69	36.72
d) Average Years of Service	8.03	7.82
e) Average Annual Covered Pay	\$ 52,747	\$ 55,120
f) Annual Covered Payroll	699,897,835	665,522,859
g) Projected Annual Payroll for Contribution Year	770,379,701	732,543,059
h) Present Value of Future Payroll	6,068,213,647	5,752,208,179
3. <b>Transferred Members</b>		
a) Counts	5,787	5,072
b) Average Attained Age	46.46	46.47
c) Average Years of Service	3.95	3.90
d) Average Annual Covered Pay	\$ 72,060	\$ 74,657
4. <b>Terminated Members</b>		
a) Counts	5,929	5,614
b) Average Attained Age	43.96	44.22
c) Average Years of Service	3.10	2.97
d) Average Annual Covered Pay	\$ 37,540	\$ 38,180
5. <b>Retired Members and Beneficiaries</b>		
a) Counts*	8,191	7,489
b) Average Attained Age	68.34	68.46
c) Average Annual Benefits*	\$ 11,005	\$ 11,682
6. <b>Active to Retired Ratio (2a/5a)</b>	1.62	1.61

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

\* Values may not match those on pages 27 and 28 due to inclusion of community property settlements.

## SUMMARY OF PARTICIPANT DATA

### Active Members

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

**Distribution of Active Members by Age and Service  
Years of Service at Valuation Date**

<b>Attained Age</b>	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-25</b>	<b>25+</b>	<b>Total</b>
15-24	553	8	0	0	0	0	561
25-29	978	153	4	0	0	0	1,135
30-34	763	354	49	2	0	0	1,168
35-39	752	368	153	65	6	0	1,344
40-44	746	419	236	153	69	6	1,629
45-49	723	470	251	260	129	64	1,897
50-54	658	429	257	253	167	188	1,952
55-59	445	340	189	188	128	151	1,441
60-64	203	169	100	89	74	66	701
65 and over	85	75	27	24	16	19	246
<b>All Ages</b>	5906	2785	1266	1034	589	494	12,074

**Distribution of Average Annual Salaries by Age and Service  
Years of Service at Valuation Date**

<b>Attained Age</b>	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-25</b>	<b>25+</b>	<b>Average</b>
15-24	\$31,559	\$40,754	\$0	\$0	\$0	\$0	\$31,690
25-29	39,849	47,516	52,428	0	0	0	40,927
30-34	45,692	51,246	50,489	81,404	0	0	47,638
35-39	48,614	58,242	60,548	60,853	55,922	0	53,233
40-44	53,084	59,574	62,460	68,188	60,431	60,591	57,869
45-49	54,106	60,223	64,624	67,894	68,803	62,093	60,172
50-54	55,264	59,207	65,825	65,240	69,273	67,954	61,235
55-59	56,993	61,847	66,978	65,585	72,204	68,409	63,116
60-64	59,452	60,363	57,529	66,554	64,257	71,655	61,955
65 and over	48,038	47,040	45,177	37,450	53,642	62,719	47,885
<b>Average</b>	48,162	57,664	62,762	65,630	67,580	67,538	55,120

## Transferred and Terminated Members

Distribution of Transfers to Other CalPERS Plans by Age and Service  
Years of Service at Valuation Date

Attained Age	0-4	5-9	10-14	15-19	20-25	25+	Total	Average Salary
15-24	48	0	0	0	0	0	48	\$40,462
25-29	273	10	0	0	0	0	283	53,225
30-34	357	57	2	0	0	0	416	60,430
35-39	483	91	21	1	0	0	596	67,091
40-44	550	146	42	16	2	0	756	74,407
45-49	638	178	68	31	4	1	920	75,907
50-54	656	209	88	23	10	2	988	80,568
55-59	474	144	71	16	4	5	714	86,172
60-64	193	74	16	4	3	2	292	85,156
65 and over	42	12	3	1	1	0	59	75,395
<b>All Ages</b>	3714	921	311	92	24	10	5,072	74,657

Distribution of Terminated Participants with Funds on Deposit by Age and Service  
Years of Service at Valuation Date

Attained Age	0-4	5-9	10-14	15-19	20-25	25+	Total	Average Salary
15-24	131	0	0	0	0	0	131	\$26,318
25-29	465	17	0	0	0	0	482	30,864
30-34	647	48	1	0	0	0	696	35,027
35-39	661	87	13	2	0	0	763	38,007
40-44	647	143	37	4	2	0	833	39,617
45-49	654	184	71	37	4	1	951	43,193
50-54	563	154	41	28	7	6	799	42,097
55-59	380	117	31	11	2	2	543	38,018
60-64	225	44	10	4	1	2	286	35,777
65 and over	117	8	5	0	0	0	130	31,180
<b>All Ages</b>	4490	802	209	86	16	11	5,614	38,180

# SUMMARY OF PARTICIPANT DATA

## Retired Members and Beneficiaries

### Distribution of Retirees and Beneficiaries by Age and Retirement Type\*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	0	0	6	6
30-34	0	0	1	0	0	0	1
35-39	0	11	7	0	0	2	20
40-44	0	19	10	0	0	11	40
45-49	0	49	11	0	1	7	68
50-54	223	75	26	2	0	20	346
55-59	907	92	30	8	1	50	1,088
60-64	1355	88	13	6	0	68	1,530
65-69	1156	69	14	5	0	92	1,336
70-74	884	43	4	3	0	107	1,041
75-79	707	38	2	3	0	125	875
80-84	474	23	3	7	0	125	632
85 and Over	358	9	0	2	0	132	501
<b>All Ages</b>	6064	516	121	36	2	745	7,484

### Distribution of Average Annual Amounts for Retirees and Beneficiaries by Age and Retirement Type\*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 30	\$0	\$0	\$0	\$0	\$0	\$6,447	\$6,447
30-34	0	0	29	0	0	0	29
35-39	0	3,960	373	0	0	10,474	3,356
40-44	0	6,885	5,751	0	0	3,168	5,579
45-49	0	9,791	665	0	1,504	6,519	7,856
50-54	8,417	9,355	1,316	4,345	0	6,729	7,966
55-59	13,273	9,969	2,942	9,807	107	10,957	12,564
60-64	14,523	8,921	1,307	8,217	0	8,563	13,799
65-69	13,358	8,266	6,495	4,751	0	9,951	12,756
70-74	13,177	9,405	1,579	6,484	0	14,245	13,067
75-79	11,247	7,679	110	4,270	0	8,239	10,613
80-84	8,916	7,686	8,551	4,876	0	8,070	8,658
85 and Over	7,931	5,711	0	4,498	0	5,590	7,261
<b>All Ages</b>	12,484	8,823	2,728	6,544	806	8,887	11,684

## Retired Members and Beneficiaries (continued)

Distribution of Retirees and Beneficiaries by Years Retired and Retirement Type\*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	2385	104	44	11	0	296	2,840
5-9	1425	155	19	7	0	196	1,802
10-14	952	116	23	7	1	110	1,209
15-19	584	58	14	2	0	18	676
20-24	430	37	15	5	0	47	534
25-29	215	30	6	3	1	40	295
30 and Over	73	16	0	1	0	38	128
<b>All Years</b>	<b>6064</b>	<b>516</b>	<b>121</b>	<b>36</b>	<b>2</b>	<b>745</b>	<b>7,484</b>

Distribution of Average Annual Amounts for Retirees and Beneficiaries by Years Retired and Retirement Type\*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 5 Yrs	\$15,190	\$10,549	\$2,271	\$8,765	\$0	\$9,040	\$14,154
5-9	12,853	8,951	5,877	7,152	0	10,082	12,120
10-14	11,211	9,220	2,030	5,238	1,504	10,420	10,731
15-19	9,189	7,616	626	6,271	0	9,032	8,864
20-24	7,900	6,249	2,534	3,802	0	6,196	7,446
25-29	6,107	7,431	4,161	2,907	107	4,209	5,892
30 and Over	5,614	6,429	0	12,175	0	5,280	5,668
<b>All Years</b>	<b>12,484</b>	<b>8,823</b>	<b>2,728</b>	<b>6,544</b>	<b>806</b>	<b>8,887</b>	<b>11,684</b>

\* Counts of members do not include alternate payees receiving benefits while the member is still working. Therefore, the total counts may not match information on page 24 of the report. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.



## APPENDIX A

- STATEMENT OF ACTUARIAL DATA, METHODS AND ASSUMPTIONS



## Data

As stated in the Actuarial Certification, the data which serves as the basis of this valuation has been obtained from the various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate. We are unaware of any potential data issues that would have a material effect on the results of this valuation, except that data does not always contain the latest salary information for former members now in reciprocal systems and does not recognize the potential for usually large salary deviation in certain cases such as elected officials. Therefore, salary information in these cases may not be accurate. These situations are relatively infrequent, however, and when they do occur, they generally do not have a material impact on the employer contribution rates.

## Actuarial Methods

### Funding Method

The actuarial funding method used for the Retirement Program is the Entry Age Normal Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percent of pay in each year from the age of hire (entry age) to the assumed retirement age. The cost allocated to the current fiscal year is called the normal cost.

The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits, for active members beyond the assumed retirement age, and for members entitled to deferred benefits, is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

The excess of the total actuarial accrued liability over the actuarial value of plan assets is called the unfunded actuarial accrued liability. Funding requirements are determined by adding the normal cost and an amortization of the unfunded liability as a level percentage of assumed future payrolls. All changes in liability due to plan amendments, changes in actuarial assumptions, or changes in actuarial methodology are amortized separately over a 20-year period. In addition, all gains or losses are tracked and amortized over a rolling 30 year period. Finally, if a pool's accrued liability exceeds the actuarial value of assets, the annual contribution with respect to the total unfunded liability may not be less than the amount produced by a 30-year amortization of the unfunded liability.

An exception to the funding rules above is used whenever the application of such rules results in inconsistencies. In these cases a "fresh start" approach is used. This simply means that the current unfunded actuarial liability is projected and amortized over a set number of years. For instance, if the annual contribution on the total unfunded liability was less than the amount produced by a 30-year amortization of the unfunded liability, the plan actuary would implement a 30-year fresh start. In addition, a fresh start is needed in the following situations:

- 1) when a positive payment would be required on a negative unfunded actuarial liability (or conversely a negative payment on a positive unfunded actuarial liability); or
- 2) when there are excess assets, rather than an unfunded liability. In this situation a 30-year fresh start is used, unless a larger fresh start is needed to avoid a negative total rate.

It should be noted that the actuary may choose to use a fresh start under other circumstances. In all cases, the period of the fresh start is chosen by the actuary according to his or her best judgement, and will not be less than five years nor greater than 30 years.

### **Asset Valuation Method**

In order to dampen the effect of short term market value fluctuations on employer contribution rates, the following asset smoothing technique is used. First an Expected Value of Assets is computed by bringing forward the prior year's Actuarial Value of Assets and the contributions received and benefits paid during the year at the assumed actuarial rate of return. The Actuarial Value of Assets is then computed as the Expected Value of Assets plus one-fifteenth of the difference between the actual Market Value of Assets and the Expected Value of Assets as of the valuation date. However in no case will the Actuarial Value of Assets be less than 80% nor greater than 120% of the actual Market Value of Assets.

### **Accounts Receivable**

In preparing valuations on and after June 30, 2007, and setting employer contribution rates, the asset figures used include accounts receivable. The CalPERS Actuarial Office assumes that all assets are accruing interest at the actuarially-assumed rate. Therefore, the rates depicted assume that all payments have been made and are accruing interest.

This change generally had minimal impact on the employer rates and no special amortization base has been created.

## Miscellaneous

### **Superfunded Status**

If a rate plan is superfunded (actuarial value of assets exceeds the present value of benefits), as of the most recently completed annual valuation, the employer may cover their employees' member contributions (both taxed and tax-deferred) using their employer assets during the fiscal year for which this valuation applies. This would entail transferring assets within the Public Employees' Retirement Fund (PERF) from the employer account to the member accumulated contribution accounts. This change was implemented effective January 1, 1999 pursuant to Chapter 231 (Assembly Bill 2099) which added Government Code Section 20816.

Superfunded status applies only to individual plans, not risk pools. For rate plans within a risk pool, actuarial value of assets is the sum of the rate plan's side fund plus the rate plan's pro-rata share of non-side fund assets. Superfunded status is determined only on annual valuation dates.

### **Internal Revenue Code Section 415**

The limitations on benefits imposed by Internal Revenue Code Section 415 were not taken into account in this valuation. The effect of these limitations has been deemed immaterial on the overall results of this valuation.

### **Internal Revenue Code Section 401(a)(17)**

The limitations on compensation imposed by Internal Revenue Code Section 401(a)(17) were taken into account in this valuation. It was determined that this change generally had minimal impact on the employer rates and no special amortization base has been created.

## ACTUARIAL ASSUMPTIONS

### **Economic Assumptions**

#### **Investment Return**

7.75% compounded annually (net of expenses). This assumption is used for all plans.

#### **Salary Growth**

Annual increases vary by category, entry age, and duration of service. The assumed increases are shown below.

#### **Public Agency Miscellaneous**

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1445	0.1265	0.1005
1	0.1215	0.1075	0.0875
2	0.1035	0.0935	0.0775
3	0.0905	0.0825	0.0695
4	0.0805	0.0735	0.0635
5	0.0725	0.0675	0.0585
10	0.0505	0.0485	0.0435
15	0.0455	0.0435	0.0385
20	0.0415	0.0395	0.0355
25	0.0365	0.0365	0.0345
30	0.0325	0.0325	0.0325

#### **Public Agency Fire**

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1075	0.1075	0.1045
1	0.0975	0.0965	0.0875
2	0.0895	0.0855	0.0725
3	0.0825	0.0775	0.0625
4	0.0765	0.0705	0.0535
5	0.0715	0.0645	0.0475
10	0.0535	0.0485	0.0375
15	0.0435	0.0415	0.0365
20	0.0395	0.0385	0.0345
25	0.0355	0.0355	0.0335
30	0.0325	0.0325	0.0325

#### **Public Agency Police**

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1115	0.1115	0.1115
1	0.0955	0.0955	0.0955
2	0.0835	0.0835	0.0805
3	0.0745	0.0725	0.0665
4	0.0675	0.0635	0.0575
5	0.0615	0.0575	0.0505
10	0.0475	0.0445	0.0365
15	0.0435	0.0415	0.0355
20	0.0395	0.0385	0.0345
25	0.0365	0.0355	0.0335
30	0.0325	0.0325	0.0325

**Public Agency County Peace Officers**

Duration of Service	Entry Age 20	Entry Age 30	Entry Age 40
0	0.1315	0.1315	0.1315
1	0.1115	0.1085	0.1055
2	0.0965	0.0915	0.0865
3	0.0845	0.0795	0.0735
4	0.0755	0.0695	0.0635
5	0.0685	0.0625	0.0555
10	0.0485	0.0445	0.0405
15	0.0435	0.0405	0.0385
20	0.0395	0.0385	0.0365
25	0.0365	0.0355	0.0345
30	0.0325	0.0325	0.0325

**Schools**

Duration of Service	Entry Age 20	Entry Age 30	Entry Age 40
0	0.1105	0.0985	0.0845
3	0.0775	0.0725	0.0645
5	0.0655	0.0625	0.0555
10	0.0475	0.0465	0.0435
15	0.0415	0.0405	0.0375
20	0.0385	0.0375	0.0345
25	0.0355	0.0355	0.0335
30	0.0325	0.0325	0.0325

- The Miscellaneous salary scale is used for Local Prosecutors.
- The Police salary scale is used for Other Safety, Local Sheriff, and School Police.

**Overall Payroll Growth**

3.25% compounded annually (used in projecting the payroll over which the unfunded liability is amortized). This assumption is used for all plans.

**Inflation**

3.00% compounded annually. This assumption is used for all plans.

**Non-valued Potential Additional Liabilities**

The potential liability loss for a cost-of-living increase exceeding the 3% inflation assumption, and any potential liability loss from future member service purchases are not reflected in the valuation.

**Miscellaneous Loading Factors****Credit for Unused Sick Leave**

Final Average Salary is increased by 1% for those agencies that have accepted the provision providing Credit for Unused Sick Leave.

**Conversion of Employer Paid Member Contributions (EPMC)**

Final Average Salary is increased by the Employee Contribution Rate for those agencies that have contracted for the provision providing for the Conversion of Employer Paid Member Contributions (EPMC) during the final compensation period.

**Norris Decision (Best Factors)**

Employees hired prior to July 1, 1982 have projected benefit amounts increased in order to reflect the use of "Best Factors" for these employees in the calculation of optional benefit forms. This is due to a 1983 Supreme Court decision, known as the Norris decision, which required males and females to be treated equally in the determination of benefit amounts. Consequently, anyone already employed at that time is given the best possible conversion factor when optional benefits are determined. No loading is necessary for employees hired after July 1, 1982.

**Demographic Assumptions****Pre-Retirement Mortality**

Non-Industrial Death Rates vary by age and gender. Industrial Death rates vary by age. See sample rates in table below. The non-industrial death rates are used for all plans. The industrial death rates are used for Safety Plans (except for Local Prosecutor safety members where the corresponding Miscellaneous Plan does not have the Industrial Death Benefit).

Age	<b>Non-Industrial Death (Not Job-Related)</b>		<b>Industrial Death (Job-Related)</b>
	Male	Female	Male and Female
20	0.00019	0.00009	0.00003
25	0.00027	0.00014	0.00007
30	0.00038	0.00021	0.00010
35	0.00054	0.00031	0.00013
40	0.00077	0.00046	0.00017
45	0.00110	0.00068	0.00020
50	0.00156	0.00102	0.00023
55	0.00221	0.00151	0.00027
60	0.00314	0.00226	0.00030

Miscellaneous Plans usually have Industrial Death rates set to zero unless the agency has specifically contracted for Industrial Death benefits. If so, each Non-Industrial Death rate shown above will be split into two components: 99% will become the Non-Industrial Death rate and 1% will become the Industrial Death rate.

**Post-Retirement Mortality**

Rates vary by age, type of retirement and gender. See sample rates in table below. These rates are used for all plans.

Age	<b>Healthy Recipients</b>		<b>Non-Industrially Disabled (Not Job-Related)</b>		<b>Industrially Disabled (Job-Related)</b>	
	Male	Female	Male	Female	Male	Female
50	0.00245	0.00136	0.01459	0.01129	0.00546	0.00388
55	0.00429	0.00253	0.02115	0.01481	0.00616	0.00568
60	0.00721	0.00442	0.02870	0.01884	0.01016	0.00818
65	0.01302	0.00795	0.03617	0.02356	0.01853	0.01214
70	0.02135	0.01276	0.04673	0.03020	0.03369	0.01760
75	0.03716	0.02156	0.06552	0.04298	0.05768	0.02774
80	0.06256	0.03883	0.09481	0.06514	0.08670	0.04690
85	0.10195	0.07219	0.14041	0.10269	0.13032	0.08262
90	0.17379	0.12592	0.20793	0.16189	0.19588	0.13984
95	0.25917	0.21773	0.30792	0.25522	0.29444	0.23566
100	0.34724	0.32036	0.45599	0.40236	0.44259	0.35341

**Marital Status**

For active members, a percentage married upon retirement is assumed according to the following table.

Member Category	Percent Married
Miscellaneous Member	85%
Local Police	90%
Local Fire	90%
Other Local Safety	90%
School Police	90%
Schools	85%



## APPENDIX A

### Age of Spouse

It is assumed that female spouses are 3 years younger than male spouses. This assumption is used for all plans.

### Separated Members

It is assumed that members refund immediately if non-vested, retire immediately if eligible, or retire at the earliest retirement age if not eligible.

### Termination with Refund

Rates vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

Public Agency Miscellaneous						
Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40	Entry Age 45
0	0.1760	0.1691	0.1622	0.1553	0.1483	0.1414
1	0.1561	0.1492	0.1423	0.1353	0.1284	0.1215
2	0.1362	0.1293	0.1224	0.1154	0.1085	0.1016
3	0.1163	0.1094	0.1025	0.0955	0.0886	0.0817
4	0.0964	0.0895	0.0826	0.0756	0.0687	0.0618
5	0.0283	0.0257	0.0232	0.0206	0.0181	0.0155
10	0.0184	0.0161	0.0139	0.0117	0.0095	0.0073
15	0.0120	0.0102	0.0083	0.0064	0.0046	0.0027
20	0.0073	0.0057	0.0041	0.0025	0.0009	0.0002
25	0.0034	0.0022	0.0009	0.0002	0.0002	0.0002
30	0.0010	0.0002	0.0002	0.0002	0.0002	0.0002

Public Agency Safety			
Duration of Service	Fire	Police	County Peace Officer
0	0.0947	0.1299	0.1072
1	0.0739	0.0816	0.0841
2	0.0531	0.0348	0.0609
3	0.0323	0.0331	0.0470
4	0.0290	0.0314	0.0445
5	0.0095	0.0110	0.0156
10	0.0029	0.0068	0.0096
15	0.0021	0.0035	0.0048
20	0.0016	0.0022	0.0022
25	0.0010	0.0015	0.0010
30	0.0009	0.0012	0.0006

The Police Termination and Refund rates are used for Public Agency Local Prosecutors, Other Safety, Local Sheriff, and School Police.

Schools					
Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
0	0.1617	0.1521	0.1425	0.1329	0.1233
1	0.1481	0.1385	0.1289	0.1193	0.1097
2	0.1346	0.1249	0.1153	0.1057	0.0961
3	0.1210	0.1114	0.1018	0.0922	0.0826
4	0.1074	0.0978	0.0882	0.0786	0.0690
5	0.0347	0.0311	0.0276	0.0240	0.0205
10	0.0215	0.0184	0.0153	0.0123	0.0092
15	0.0144	0.0118	0.0092	0.0066	0.0040
20	0.0091	0.0069	0.0047	0.0025	0.0003
25	0.0046	0.0029	0.0012	0.0002	0.0002
30	0.0019	0.0004	0.0002	0.0002	0.0002

**Termination with Vested Benefits**

Rate vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

Public Agency Miscellaneous					
Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
5	0.0482	0.0439	0.0395	0.0351	0.0307
10	0.0390	0.0343	0.0296	0.0249	0.0000
15	0.0326	0.0274	0.0224	0.0000	0.0000
20	0.0245	0.0192	0.0000	0.0000	0.0000
25	0.0156	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000

Public Agency Safety			
Duration of Service	Fire	Police	County Peace Officer
5	0.0162	0.0187	0.0265
10	0.0061	0.0145	0.0204
15	0.0058	0.0094	0.0130
20	0.0053	0.0075	0.0074
25	0.0047	0.0067	0.0043
30	0.0045	0.0064	0.0030
35	0.0000	0.0000	0.0000

- When a member is eligible to retire, the termination with vested benefits probability is set to zero.
- The Police Termination with vested benefits rates are used for Public Agency Local Prosecutors, Other Safety, Local Sheriff, and School Police.

Schools					
Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
5	0.0591	0.0531	0.0470	0.0410	0.0349
6	0.0567	0.0505	0.0444	0.0382	0.0321
7	0.0540	0.0478	0.0415	0.0353	0.0290
8	0.0513	0.0450	0.0387	0.0323	0.0260
9	0.0486	0.0422	0.0357	0.0293	0.0229
10	0.0456	0.0391	0.0326	0.0260	0.0000
14	0.0404	0.0335	0.0266	0.0197	0.0000
15	0.0389	0.0319	0.0249	0.0000	0.0000
19	0.0321	0.0249	0.0176	0.0000	0.0000
20	0.0304	0.0230	0.0000	0.0000	0.0000
24	0.0231	0.0153	0.0000	0.0000	0.0000
25	0.0211	0.0000	0.0000	0.0000	0.0000
29	0.0123	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000

**Non-Industrial (Not Job-Related) Disability**

Rates vary by age and gender for Miscellaneous Plans.

Rates vary by age for Safety Plans

Age	<b>Miscellaneous</b>		<b>Fire</b>	<b>Police</b>	<b>County Peace Officer</b>	<b>Schools</b>	
	Male	Female	Male and Female	Male and Female	Male and Female	Male	Female
20	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
25	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0001
30	0.0002	0.0004	0.0001	0.0002	0.0001	0.0004	0.0003
35	0.0008	0.0010	0.0001	0.0003	0.0002	0.0008	0.0005
40	0.0015	0.0016	0.0001	0.0004	0.0003	0.0014	0.0010
45	0.0024	0.0023	0.0002	0.0005	0.0004	0.0028	0.0016
50	0.0037	0.0035	0.0005	0.0008	0.0007	0.0050	0.0030
55	0.0049	0.0041	0.0010	0.0013	0.0012	0.0072	0.0047
60	0.0055	0.0039	0.0015	0.0020	0.0019	0.0071	0.0037

- The Miscellaneous Non-Industrial Disability rates are used for Local Prosecutors.
- The Police Non-Industrial Disability rates are used for Other Safety, Local Sheriff, and School Police.

**Industrial (Job-Related) Disability**

Rates vary by age and category.

<b>Age</b>	<b>Fire</b>	<b>Police</b>	<b>County Peace Officer</b>
20	0.0002	0.0006	0.0002
25	0.0010	0.0028	0.0012
30	0.0021	0.0056	0.0025
35	0.0031	0.0084	0.0037
40	0.0041	0.0112	0.0050
45	0.0051	0.0140	0.0062
50	0.0062	0.0167	0.0075
55	0.0601	0.0581	0.0128
60	0.0601	0.0581	0.0128

- The Police Industrial Disability rates are used for Local Sheriff and Other Safety.
- Fifty Percent of the Police Industrial Disability rates are used for School Police.
- One Percent of the Police Industrial Disability rates are used for Local Prosecutors.
- Normally, rates are zero for Miscellaneous Plans unless the agency has specifically contracted for Industrial Disability benefits. If so, each Miscellaneous Non-Industrial Disability rate will be split into two components: 50% will become the Non-Industrial Disability rate and 50% will become the Industrial Disability rate.

## Service Retirement

## Public Agency Miscellaneous 2% @ 60

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0085	0.0120	0.0146	0.0165	0.0184	0.0206
51	0.0059	0.0082	0.0100	0.0113	0.0126	0.0142
52	0.0092	0.0129	0.0157	0.0178	0.0198	0.0222
53	0.0104	0.0146	0.0177	0.0200	0.0224	0.0251
54	0.0109	0.0154	0.0187	0.0211	0.0236	0.0264
55	0.0198	0.0279	0.0339	0.0383	0.0427	0.0479
56	0.0181	0.0254	0.0308	0.0348	0.0389	0.0436
57	0.0208	0.0292	0.0354	0.0400	0.0447	0.0501
58	0.0262	0.0368	0.0447	0.0505	0.0564	0.0632
59	0.0335	0.0471	0.0572	0.0646	0.0721	0.0809
60	0.0615	0.0865	0.1051	0.1187	0.1325	0.1485
61	0.0628	0.0883	0.1073	0.1212	0.1353	0.1517
62	0.1258	0.1767	0.2147	0.2426	0.2708	0.3036
63	0.1263	0.1775	0.2156	0.2436	0.2720	0.3049
64	0.0972	0.1366	0.1659	0.1875	0.2093	0.2346
65	0.1731	0.2432	0.2955	0.3339	0.3727	0.4178
66	0.0946	0.1330	0.1616	0.1825	0.2038	0.2284
67	0.1272	0.1787	0.2171	0.2453	0.2738	0.3069

## Public Agency Miscellaneous 2% @ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0145	0.0184	0.0224	0.0269	0.0307	0.0366
51	0.0106	0.0135	0.0164	0.0198	0.0226	0.0269
52	0.0114	0.0145	0.0176	0.0212	0.0241	0.0287
53	0.0150	0.0190	0.0231	0.0278	0.0318	0.0378
54	0.0199	0.0252	0.0307	0.0369	0.0421	0.0502
55	0.0475	0.0604	0.0734	0.0883	0.1008	0.1200
56	0.0395	0.0502	0.0611	0.0735	0.0838	0.0998
57	0.0427	0.0542	0.0659	0.0793	0.0905	0.1078
58	0.0473	0.0601	0.0730	0.0879	0.1003	0.1194
59	0.0510	0.0648	0.0788	0.0948	0.1082	0.1287
60	0.0715	0.0908	0.1104	0.1328	0.1516	0.1804
61	0.0715	0.0908	0.1104	0.1328	0.1516	0.1805
62	0.1275	0.1620	0.1969	0.2369	0.2704	0.3219
63	0.1287	0.1636	0.1988	0.2392	0.2731	0.3250
64	0.0931	0.1182	0.1438	0.1729	0.1974	0.2350
65	0.1738	0.2209	0.2686	0.3231	0.3688	0.4390
66	0.1085	0.1378	0.1675	0.2016	0.2301	0.2739
67	0.1109	0.1409	0.1713	0.2061	0.2353	0.2801

**Public Agency Miscellaneous 2.5% @ 55, 2.7% @ 55, 3% @ 60**

<u>Age</u>	<u>2.5% @ 55</u>		<u>2.7% @ 55</u>		<u>3% @ 60</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	0.05000	0.07000	0.05000	0.07000	0.05000	0.07000
51	0.02000	0.05000	0.02000	0.05000	0.02000	0.05000
52	0.03000	0.05000	0.03000	0.05000	0.03000	0.05000
53	0.03000	0.05000	0.03000	0.06000	0.03000	0.05000
54	0.04000	0.05000	0.04000	0.06000	0.04000	0.05000
55	0.08000	0.09000	0.09000	0.10000	0.08000	0.09000
56	0.06000	0.07000	0.07000	0.08000	0.07000	0.08000
57	0.07000	0.06000	0.08000	0.07000	0.08000	0.07000
58	0.08000	0.10000	0.08000	0.10000	0.09000	0.11000
59	0.09000	0.09000	0.10000	0.09000	0.11000	0.10000
60	0.16000	0.12000	0.17000	0.13000	0.19000	0.15000
61	0.15000	0.10000	0.16000	0.11000	0.17000	0.12000
62	0.26000	0.21000	0.28000	0.23000	0.31000	0.25000
63	0.22000	0.18000	0.23000	0.20000	0.26000	0.22000
64	0.15000	0.13000	0.16000	0.14000	0.18000	0.16000
65	0.25000	0.25000	0.27000	0.27000	0.30000	0.30000
66	0.14000	0.15000	0.15000	0.16000	0.17000	0.18000
67	0.12000	0.14000	0.13000	0.16000	0.14000	0.17000
68	0.12000	0.11000	0.13000	0.12000	0.15000	0.13000
69	0.09000	0.13000	0.10000	0.14000	0.11000	0.15000
70	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

**Public Agency Fire ½ @ 55 and 2% @ 55**

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
50	0.01588	56	0.11079
51	0.00000	57	0.00000
52	0.03442	58	0.09499
53	0.01990	59	0.04409
54	0.04132	60	1.00000
55	0.07513		

**Public Agency Police ½ @ 55 and 2% @ 55**

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
50	0.02552	56	0.06921
51	0.00000	57	0.05113
52	0.01637	58	0.07241
53	0.02717	59	0.07043
54	0.00949	60	1.00000
55	0.16674		

**Public Agency Police 2%@ 50**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0138	0.0138	0.0138	0.0138	0.0253	0.0451
51	0.0123	0.0123	0.0123	0.0123	0.0226	0.0402
52	0.0262	0.0262	0.0262	0.0262	0.0480	0.0855
53	0.0523	0.0523	0.0523	0.0523	0.0957	0.1706
54	0.0697	0.0697	0.0697	0.0697	0.1275	0.2274
55	0.0899	0.0899	0.0899	0.0899	0.1645	0.2932
56	0.0638	0.0638	0.0638	0.0638	0.1166	0.2079
57	0.0711	0.0711	0.0711	0.0711	0.1300	0.2318
58	0.0628	0.0628	0.0628	0.0628	0.1149	0.2049
59	0.1396	0.1396	0.1396	0.1396	0.1735	0.2544
60	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
61	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
62	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
63	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
64	0.1396	0.1396	0.1396	0.1396	0.1719	0.2506
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.

**Public Agency Fire 2%@50**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0065	0.0065	0.0065	0.0065	0.0101	0.0151
51	0.0081	0.0081	0.0081	0.0081	0.0125	0.0187
52	0.0173	0.0173	0.0173	0.0173	0.0267	0.0400
53	0.0465	0.0465	0.0465	0.0465	0.0716	0.1072
54	0.0638	0.0638	0.0638	0.0638	0.0983	0.1471
55	0.0868	0.0868	0.0868	0.0868	0.1336	0.2000
56	0.0779	0.0779	0.0779	0.0779	0.1200	0.1796
57	0.0901	0.0901	0.0901	0.0901	0.1387	0.2077
58	0.0790	0.0790	0.0790	0.0790	0.1217	0.1821
59	0.0729	0.0729	0.0729	0.0729	0.1123	0.1681
60	0.1135	0.1135	0.1135	0.1135	0.1747	0.2615
61	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618
62	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618
63	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618
64	0.1136	0.1136	0.1136	0.1136	0.1749	0.2618
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

**Public Agency Police 3% @ 55**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0193	0.0193	0.0193	0.0193	0.0397	0.0600
51	0.0157	0.0157	0.0157	0.0157	0.0324	0.0491
52	0.0163	0.0163	0.0163	0.0163	0.0337	0.0510
53	0.0587	0.0587	0.0587	0.0587	0.1208	0.1829
54	0.0691	0.0691	0.0691	0.0691	0.1422	0.2154
55	0.1164	0.1164	0.1164	0.1164	0.2397	0.3630
56	0.0756	0.0756	0.0756	0.0756	0.1556	0.2357
57	0.0581	0.0581	0.0581	0.0581	0.1196	0.1812
58	0.0508	0.0508	0.0508	0.0508	0.1045	0.1583
59	0.0625	0.0625	0.0625	0.0625	0.1287	0.1949
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.

**Public Agency Fire 3% @ 55**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0024	0.0024	0.0024	0.0035	0.0055	0.0065
51	0.0048	0.0048	0.0048	0.0070	0.0110	0.0128
52	0.0147	0.0147	0.0147	0.0215	0.0339	0.0396
53	0.0425	0.0425	0.0425	0.0621	0.0979	0.1142
54	0.0567	0.0567	0.0567	0.0828	0.1306	0.1523
55	0.0915	0.0915	0.0915	0.1337	0.2109	0.2459
56	0.0811	0.0811	0.0811	0.1184	0.1868	0.2178
57	0.0996	0.0996	0.0996	0.1455	0.2295	0.2676
58	0.0814	0.0814	0.0814	0.1189	0.1874	0.2185
59	0.0775	0.0775	0.0775	0.1131	0.1784	0.2080
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000



**Public Agency Police 3% @ 50**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0435	0.0435	0.0435	0.0821	0.1208	0.1559
51	0.0385	0.0385	0.0385	0.0728	0.1071	0.1382
52	0.0614	0.0614	0.0614	0.1159	0.1705	0.2200
53	0.0689	0.0689	0.0689	0.1303	0.1916	0.2472
54	0.0710	0.0710	0.0710	0.1342	0.1974	0.2547
55	0.0898	0.0898	0.0898	0.1698	0.2497	0.3222
56	0.0687	0.0687	0.0687	0.1299	0.1910	0.2465
57	0.0803	0.0803	0.0803	0.1518	0.2232	0.2880
58	0.0791	0.0791	0.0791	0.1495	0.2198	0.2837
59	0.0820	0.0820	0.0820	0.1549	0.2279	0.2940
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.

**Public Agency Fire 3% @ 50**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.0341	0.0341	0.0341	0.0477	0.0679	0.0804
51	0.0463	0.0463	0.0463	0.0647	0.0922	0.1091
52	0.0693	0.0693	0.0693	0.0967	0.1377	0.1630
53	0.0835	0.0835	0.0835	0.1166	0.1661	0.1965
54	0.1025	0.1025	0.1025	0.1431	0.2038	0.2412
55	0.1265	0.1265	0.1265	0.1766	0.2516	0.2977
56	0.1210	0.1210	0.1210	0.1690	0.2407	0.2848
57	0.1010	0.1010	0.1010	0.1411	0.2010	0.2378
58	0.1184	0.1184	0.1184	0.1652	0.2354	0.2786
59	0.1002	0.1002	0.1002	0.1399	0.1993	0.2358
60	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

**Schools 2% @ 55**

Age	Duration of Service						
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years	35 Years
50	0.0036	0.0071	0.0100	0.0118	0.0131	0.0147	0.0172
52	0.0035	0.0069	0.0096	0.0114	0.0127	0.0142	0.0167
54	0.0060	0.0118	0.0165	0.0196	0.0218	0.0244	0.0286
56	0.0158	0.0314	0.0439	0.0519	0.0578	0.0647	0.0760
58	0.0202	0.0402	0.0562	0.0663	0.0739	0.0827	0.0971
60	0.0368	0.0729	0.1020	0.1205	0.1342	0.1502	0.1763
62	0.0762	0.1512	0.2115	0.2498	0.2784	0.3114	0.3657
65	0.0906	0.1797	0.2513	0.2969	0.3308	0.3701	0.4345
70	0.0660	0.1308	0.1830	0.2162	0.2408	0.2695	0.3164
75	0.0546	0.1082	0.1513	0.1788	0.1992	0.2229	0.2617



## APPENDIX B

- DESCRIPTION OF PRINCIPAL PLAN PROVISIONS



The following is a description of the principal plan provisions used in calculating the liabilities of the Miscellaneous 2% at 55 Risk Pool. Plan provisions are divided based on whether they are standard, Class 1, Class 2 or Class 3 benefits. Standard benefits are applicable to all members of the risk pool while Class 1, 2 or 3 benefits vary among employers. Provided at the end of the listing is a table providing the percentage of members participating in the pool that are subject to each benefit.

Many of the statements in this summary are general in nature, and are intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

## Service Retirement

### Eligibility

A CalPERS member becomes eligible for Service Retirement upon attainment of age 50 with at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements)

### Benefit

The Service Retirement benefit calculated for service earned by this group of employees is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*, where

- The *benefit factor* for this group of employees comes from the **2% at 55 Miscellaneous** benefit formula factor table. The factor depends on the member's age at retirement. Listed below are the factors for retirement at whole year ages:

Retirement Age	2% at 55 Miscellaneous Factor	Retirement Age	2% at 55 Miscellaneous Factor
50	1.426%	57	2.104%
51	1.522%	58	2.156%
52	1.628%	59	2.210%
53	1.742%	60	2.262%
54	1.866%	61	2.314%
55	2%	62	2.366%
56	2.052%	63 & Up	2.418%

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. Any unused sick leave accumulated at the time of retirement will be converted to credited service at a rate of 0.004 years of service for each day of sick leave.
- The *final compensation* is the monthly average of the member's highest 36 or 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). The standard benefit available to all members is 36 months. Employers have the option of providing a final compensation equal to the highest 12 consecutive months by contracting for this class 1 optional benefit.
- For employees covered by the modified formula, the final compensation is offset by \$133.33 (or by one third if the final compensation is less than \$400). Employers have the option to contract for the class 3 benefit that will eliminate the offset applicable to the final compensation of employees covered by a modified formula.

- The Miscellaneous Service Retirement benefit is not capped. The Safety Service Retirement benefit is capped at 90% of final compensation.

### Vested Deferred Retirement

#### Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, **and** has earned at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

#### Eligibility to Start Receiving Benefits

The CalPERS member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50.

#### Benefit

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance.

### Non-Industrial (Non-Job Related) Disability Retirement

#### Eligibility

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes *disabled* and has at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. *Disabled* means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job related. A CalPERS member must be actively working with any CalPERS employer at the time of disability in order to be eligible for this benefit.

#### Standard Benefit

The standard Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8% of final compensation, multiplied by *service*, which is determined as follows:

- *service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or
- *service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33 1/3% of Final Compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

#### Improved Benefit

Employers have the option of providing this improved benefit by contracting for this class 3 optional benefit.

## APPENDIX B

The improved Non-Industrial Disability Retirement benefit is a monthly allowance equal to 30% of final compensation for the first 5 years of service, plus 1% for each additional year of service to a maximum of 50% of final compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

### Industrial (Job Related) Disability Retirement

Employers have the option of providing this improved benefit by contracting for this class 1 optional benefit.

#### **Eligibility**

An employee is eligible for Industrial Disability Retirement if he or she becomes disabled while working, where disabled means the member is unable to perform the duties of the job because of a work-related illness or injury which is expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described in the next paragraph.

#### **Standard Benefit**

The standard Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return of or annuitization of the accumulated member contributions with respect to employment in this group. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit.

#### **Increased Benefit (75% of Final Compensation)**

The increased Industrial Disability Retirement benefit is a monthly allowance equal to 75% of final compensation for total disability. For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return of or annuitization of the accumulated member contributions with respect to employment in this group. However, if a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit.

### Post-Retirement Death Benefit

#### **Standard Lump Sum Payment**

Upon the death of a retiree, a one-time lump sum payment of \$500 will be made to the retiree's designated survivor(s), or to the retiree's estate.

#### **Improved Lump Sum Payment**

Employers have the option of providing any of these improved lump sum death benefit by contracting for any of these class 3 optional benefits.

Upon the death of a retiree, a one-time lump sum payment of \$600, \$2,000, \$3,000, \$4,000 or \$5,000 will be made to the retiree's designated survivor(s), or to the retiree's estate.

## Form of Payment for Retirement Allowance

### Standard Form of Payment

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. The larger the amount to be provided to the beneficiary is, and the younger the beneficiary is, the greater the reduction to the retiree's allowance.

### Improved Form of Payment (Post Retirement Survivor Allowance)

Employers have the option to contract for this class 1 benefit providing an improved post retirement survivor allowance.

For retirement allowances with respect to service subject to the modified formula, 25% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. For retirement allowances with respect to service subject to the full formula, 50% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. This additional benefit is often referred to as post retirement survivor allowance (PRSA) or simply as survivor continuance.

In other words, 25% or 50% of the allowance, the continuance portion, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime. This benefit will not be discontinued in the event the spouse remarries.

The remaining 75% or 50% of the retirement allowance, which may be referred to as the option portion of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. Or, the retiree may choose to provide for some of this option portion to be paid to any designated beneficiary after the retiree's death. CalPERS offers a variety of such benefit options, which the retiree pays for by taking a reduction to the option portion of his or her retirement allowance.

## Pre-Retirement Death Benefits

### Basic Death Benefit

#### Eligibility

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit described below may choose to receive that death benefit instead of this Basic Death benefit.

#### Standard Benefit

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.75% per year, plus a lump sum in the amount of one month's salary for each completed year of current service, up to a maximum of six months' salary. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.



## 1957 Survivor Benefit

### Eligibility

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. An eligible survivor means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the Special Death benefit.

### Standard Benefit

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18, unless the child is disabled. There is a guarantee that the total amount paid will at least equal the Basic Death benefit.

## Optional Settlement 2W Death Benefit

### Eligibility

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor may choose this benefit in lieu of the Basic Death benefit or the 1957 Survivor benefit.

### Standard Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives, at which time it is continued to any unmarried children under age 18, if applicable. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

## Special Death Benefit

### Eligibility

An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

### Improved Benefit

The Special Death benefit is a monthly allowance equal to 50% of final compensation, and will be increased whenever the compensation paid to active employees is increased but ceasing to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death at which time the

## APPENDIX B

allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an **additional monthly allowance** is paid equal to the following:

- |                                   |                             |
|-----------------------------------|-----------------------------|
| • if 1 eligible child:            | 12.5% of final compensation |
| • if 2 eligible children:         | 20.0% of final compensation |
| • if 3 or more eligible children: | 25.0% of final compensation |

### Cost-of-Living Adjustments

#### Standard Benefit

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by 2%. However, the cumulative adjustment may not be greater than the cumulative change in the Consumer Price Index since the date of retirement.

#### Improved Benefit

Employers have the option of providing any of these improved cost-of-living adjustments by contracting for any one of these class 1 optional benefits.

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by either 3%, 4% or 5%. However, the cumulative adjustment may not be greater than the cumulative change in the Consumer Price Index since the date of retirement.

### Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 80% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan.

### Employee Contributions

Each employee contributes toward his or her retirement based upon the following schedule. The employer may choose to "pick-up" these contributions for the employees.

The percent contributed below the monthly compensation breakpoint is 0%.

The monthly compensation breakpoint is \$0 for full and supplemental formula members, except for those members in the CSU auxiliary organizations where the breakpoint is \$513.

The monthly compensation breakpoint is \$133.33 for employees covered by the modified formula.

The percent contributed above the monthly compensation breakpoint is 7% except for those members in the CSU auxiliary organizations where the contribution rate has been set at the State member level.

### Refund of Employee Contributions

If the member's service with the employer ends, and if the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

## APPENDIX C

- CLASSIFICATION OF OPTIONAL BENEFITS
- EXAMPLE OF INDIVIDUAL AGENCY'S RATE CALCULATION
- DISTRIBUTION OF CLASS 1 BENEFITS



## Classification of Optional Benefits

Below is the list of the available optional benefit provisions and their initial classification upon establishment of risk pools. When new benefits become available as a result of legislation, the Chief actuary will determine their classification in accordance with the criteria established in the board policy.

### Class 1

Class 1 benefits have been identified to be the more expensive ancillary benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 1 benefit will be responsible for the past service liability associated with such benefit and will be required to pay a surcharge established by the actuary to cover the ongoing cost (normal cost) of the Class 1 benefit.

The table below shows the list of Class 1 benefits and their applicable surcharge for the Miscellaneous 2% at 55 Risk Pool. Last year's surcharges are shown for comparison.

	June 30, 2006	June 30, 2007
• One Year Final Compensation	0.506%	0.508%
• EPMC 7%	0.910%	0.913%
• EPMC 8%	N/A	N/A
• EPMC 9%	N/A	N/A
• 25% PRSA	0.877%	0.876%
• 50% PRSA	0.877%	0.876%
• 3% Annual COLA	1.153%	1.156%
• 4% Annual COLA	1.153%	1.156%
• 5% Annual COLA	1.153%	1.156%
• IDR For Local Miscellaneous Members	0.541%	0.546%
• Increased IDR Allowance to 75% of Compensation	0.956%	0.964%
• Improved Industrial Disability Allowance for Local Safety Members	N/A	N/A
• 1% EE Cost Sharing	(1.000%)	(1.000%)
• 2% EE Cost Sharing	(2.000%)	(2.000%)
• .75% EE Cost Sharing	(0.750%)	(0.750%)
• 7% Employees Contribution Reduction	7.000%	7.000%
• 3.50% Employees Contribution Reduction	3.500%	3.500%
• Employee Contribution Rate for CSUC Auxiliary Organizations Reduced to State Member Level - Covered by Social Security	2.000%	2.000%
• Employee Contribution Rate for CSUC Auxiliary Organizations Reduced to State Member Level - Not Covered by Social Security	1.000%	1.000%
• 1.25% @ 65 Miscellaneous	N/A	N/A
• 2.5% @ 55 Safety	N/A	N/A
• 1/2 @ 55 Safety	N/A	N/A

For employers contracting for more than one Class 1 benefit, the surcharges listed in this table will be added together.

### Class 2

Class 2 benefits have been identified to be the ancillary benefits providing one-time increases in benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 2 benefit will be responsible for the past service liability associated with such benefit.

The following benefits shall be classified as Class 2:

- One-time 1% to 6% Ad Hoc COLA Increases for members who retired or died prior to January 1, 1998 (Section 21328)

## APPENDIX C

- "Golden Handshakes" – Section 20903 Two Years Additional Service Credit
- Credit for Prior Service Paid for by the Employer
- Military Service Credit (Section 20996)
- Credit for Local Retirement System Service for Employees of Agencies Contracted on a Prospective basis (Section 20530.1)
- Prior Service Credit for Employees of an Assumed Agency Function (Section 20936)
- Limit Prior Service to Members Employed on Contract Date (Section 20938)
- Public Service Credit for Limited Prior Service (Section 21031)
- Public Service Credit for Employees of an Assumed Agency or Function (Section 21025)

### Class 3

Class 3 benefits have been identified to be the less expensive ancillary benefits. Class 3 benefits may vary by rate plan within each risk pool. However, the employer contribution rate will not vary within the risk pool due to the Class 3 benefits.

The following benefits shall be classified as Class 3:

- Full formula plus social security
- Post Retirement Lump Sum Death Benefit
- \$600 lump sum retired death benefit (Section 21622)
- \$2,000 lump sum retired death benefit (Section 21623.5)
- \$3,000 lump sum retired death benefit (Section 21623.5)
- \$4,000 lump sum retired death benefit (Section 21623.5)
- \$5,000 lump sum retired death benefit (Section 21623.5)
- Improved non-industrial disability allowance (Section 21427)
- Special death benefit for local miscellaneous members (Section 21540.5)
- Service Credit Purchased by Member
- Partial Service Retirement (Section 21118)
- Optional Membership for Part Time Employees (Section 20325)
- Extension of Reciprocity Rights for Elective Officers (Section 20356)
- Removal of Contract Exclusions Prospectively Only (Section 20503)
- Alternate Death Benefit for Local Fire Members credited with 20 or more years of service (Section 21547.7)

## Example Of Individual Agency's Rate Calculation

An individual employer rate is comprised of several components. These include the pool's net employer normal cost, payment on the pool's unfunded liability, additional surcharge payments for contracted Class 1 benefits, the normal cost phase-out and an agency's payment for their own side fund. An example of the total rate for an employer might look something like this:

Net Pool's Employer Normal Cost	7.720%
Rate Plan Surcharges	<u>0.508%</u>
Total Employer Normal Cost	8.228%
Plus: Pool's Payment on the Amortization Bases	0.469%
Normal Cost Phase Out	0.400%
Side Fund Amortization Payment	<u>2.600%</u>
Total Employer Rate for fiscal year 2009-2010	11.697%

Details regarding your individual agency's normal cost phase out, side fund and surcharges can be found in Section 1.

## Distribution of Class 1 Benefits

	<b>% of members in the pool with contracted benefit</b>
<b><i>Final Compensation</i></b>	
One Year Final Compensation	68.0%
Three Years Final Compensation	32.1%
<b><i>Post Retirement Survivor Continuation (PRSA)</i></b>	
No PRSA	79.6%
With PRSA	20.4%
<b><i>Cost-of-Living Adjustments (COLA)</i></b>	
2% COLA	96.4%
3% COLA	2.2%
4% COLA	0.5%
5% COLA	1.0%
<b><i>Industrial Disability Benefit</i></b>	
None	96.9%
Standard Industrial Disability Benefit (50% of Final Compensation)	2.6%
Improved Industrial Disability Benefit (75% of Final Compensation)	0.6%
Improved Industrial Disability Benefit (50% - 90% of Final Compensation)	0.0%





## APPENDIX D

- LIST OF PARTICIPATING EMPLOYERS



## Employer Name

AGOURA HILLS AND CALABASAS COMMUNITY CENTER  
 ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY  
 ALAMEDA COUNTY FIRE DEPARTMENT  
 ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
 ALLIANCE OF SCHOOLS FOR COOPERATIVE INSURANCE PROGRAMS  
 ALTADENA LIBRARY DISTRICT  
 AMADOR COUNTY TRANSPORTATION COMMISSION  
 AMADOR RAPID TRANSIT DISTRICT  
 AMADOR WATER AGENCY  
 AMERICAN RIVER FLOOD CONTROL DISTRICT  
 ANDERSON CEMETERY DISTRICT  
 ANTELOPE VALLEY TRANSIT AUTHORITY  
 ARCADE CREEK RECREATION AND PARK DISTRICT  
 AROMAS WATER DISTRICT  
 ARROWBEAR PARK COUNTY WATER DISTRICT  
 ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS  
 AUBURN AREA RECREATION AND PARK DISTRICT  
 AUBURN PUBLIC CEMETERY DISTRICT  
 AZTEC SHOPS, LTD  
 BALDY MESA WATER DISTRICT  
 BAY AREA WATER SUPPLY AND CONSERVATION AGENCY  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 BELMONT SAN CARLOS FIRE DEPARTMENT  
 BELVEDERE-TIBURON LIBRARY AGENCY  
 BIG BEAR CITY AIRPORT DISTRICT  
 BIG BEAR MUNICIPAL WATER DISTRICT  
 BLACK GOLD COOPERATIVE LIBRARY SYSTEM  
 BONITA-SUNNYSIDE FIRE PROTECTION DISTRICT  
 BROADMOOR POLICE PROTECTION DISTRICT  
 BROOKTRAILS TOWNSHIP COMMUNITY SERVICES DISTRICT  
 BROWNS VALLEY IRRIGATION DISTRICT  
 BUENA PARK LIBRARY DISTRICT  
 BURNEY FIRE DISTRICT  
 BUTTE COUNTY AIR QUALITY MANAGEMENT DISTRICT  
 BUTTE COUNTY ASSOCIATION OF GOVERNMENTS  
 BUTTE COUNTY IN-HOME SUPPORTIVE SERVICES PUBLIC AUTHORITY  
 BUTTE SCHOOLS SELF-FUNDED PROGRAMS  
 CABRILLO COLLEGE FOUNDATION  
 CACHUMA OPERATIONS AND MAINTENANCE BOARD  
 CALIF INTERSCHOLASTIC FED - NORTHERN SECTION  
 CALIFORNIA AUTHORITY OF RACING FAIRS  
 CALIFORNIA BEAR CREDIT UNION  
 CALIFORNIA FAIR SERVICES AUTHORITY  
 CALIFORNIA FIREFIGHTERS JOINT APPRENTICESHIP COMMITTEE  
 CALIFORNIA INTERSCHOLASTIC FEDERATION, CENTRAL COAST SECTION  
 CALIFORNIA INTERSCHOLASTIC FEDERATION, NORTH COAST SECTION  
 CALIFORNIA INTERSCHOLASTIC FEDERATION, SAC-JOQUIN SECTION  
 CALIFORNIA INTERSCHOLASTIC FEDERATION, SAN DIEGO SECTION  
 CALIFORNIA INTERSCHOLASTIC FEDERATION, SOUTHERN SECTION  
 CALIFORNIA INTERSCHOLASTIC FEDERATION, STATE OFFICE  
 CALIFORNIA JOINT POWERS INSURANCE AUTHORITY  
 CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION  
 CALIFORNIA REDEVELOPMENT ASSOCIATION  
 CALIFORNIA STATE AND FEDERAL EMPLOYEES #20 CREDIT UNION  
 CALIFORNIA STATE UNIVERSITY, FRESNO ATHLETIC CORPORATION  
 CALIFORNIA STATE UNIVERSITY-FRESNO ASSOCIATION, INC.  
 CALLEGUAS MUNICIPAL WATER DISTRICT

## APPENDIX D

CAMERON PARK COMMUNITY SERVICES DISTRICT  
CAMROSA WATER DISTRICT  
CAPITOL AREA DEVELOPMENT AUTHORITY  
CARMICHAEL WATER DISTRICT  
CARPINTERIA SANITARY DISTRICT  
CARPINTERIA VALLEY WATER DISTRICT  
CASTAIC LAKE WATER AGENCY  
CENTRAL COAST WATER AUTHORITY  
CENTRAL SIERRA CHILD SUPPORT AGENCY  
CENTRAL WATER DISTRICT  
CHICO AREA RECREATION AND PARK DISTRICT  
CHINO BASIN WATERMASTER  
CITRUS HEIGHTS WATER DISTRICT  
CITY OF AGOURA HILLS  
CITY OF ALISO VIEJO  
CITY OF AMERICAN CANYON  
CITY OF ARVIN  
CITY OF AUBURN  
CITY OF AVALON  
CITY OF AVENAL  
CITY OF BELLFLOWER  
CITY OF BELMONT  
CITY OF BELVEDERE  
CITY OF BISHOP  
CITY OF BRAWLEY  
CITY OF BUELLTON  
CITY OF CALABASAS  
CITY OF CANYON LAKE  
CITY OF CARMEL-BY-THE-SEA  
CITY OF CARPINTERIA  
CITY OF CLAYTON  
CITY OF CLEARLAKE  
CITY OF CLOVERDALE  
CITY OF COLUSA  
CITY OF CORCORAN  
CITY OF CORNING  
CITY OF DANA POINT  
CITY OF DIAMOND BAR  
CITY OF DINUBA  
CITY OF DUNSMUIR  
CITY OF FILLMORE  
CITY OF FORT BRAGG  
CITY OF GOLETA  
CITY OF GREENFIELD  
CITY OF GRIDLEY  
CITY OF GUADALUPE  
CITY OF HALF MOON BAY  
CITY OF HERCULES  
CITY OF HERMOSA BEACH  
CITY OF HIGHLAND  
CITY OF HOLLISTER  
CITY OF INDIAN WELLS  
CITY OF IRWINDALE  
CITY OF KING CITY  
CITY OF KINGSBURG  
CITY OF LA CANADA FLINTRIDGE  
CITY OF LA MIRADA  
CITY OF LAGUNA NIGUEL  
CITY OF LAGUNA WOODS

## APPENDIX D

CITY OF LAKE FOREST  
CITY OF LARKSPUR  
CITY OF LATHROP  
CITY OF LAWDALE  
CITY OF LEMOORE  
CITY OF LIVINGSTON  
CITY OF LOMA LINDA  
CITY OF MALIBU  
CITY OF MARINA  
CITY OF MARTINEZ  
CITY OF MAYWOOD  
CITY OF MONTE SERENO  
CITY OF MOORPARK  
CITY OF MT. SHASTA  
CITY OF NEEDLES  
CITY OF OJAI  
CITY OF OROVILLE  
CITY OF PACIFIC GROVE  
CITY OF PALOS VERDES ESTATES  
CITY OF PARLIER  
CITY OF PLACENTIA  
CITY OF PLEASANT HILL  
CITY OF RED BLUFF  
CITY OF REEDLEY  
CITY OF RIO VISTA  
CITY OF RIVERBANK  
CITY OF ROLLING HILLS ESTATES  
CITY OF SAN DIMAS  
CITY OF SAN FERNANDO  
CITY OF SAN JOAQUIN  
CITY OF SAN JOSE  
CITY OF SAN MARINO  
CITY OF SANTA PAULA  
CITY OF SARATOGA  
CITY OF SEAL BEACH  
CITY OF SEASIDE  
CITY OF SEBASTOPOL  
CITY OF SHAFTER  
CITY OF SIGNAL HILL  
CITY OF SONOMA  
CITY OF SOUTH PASADENA  
CITY OF ST. HELENA  
CITY OF STANTON  
CITY OF SUISUN CITY  
CITY OF TAFT  
CITY OF TEHACHAPI  
CITY OF TULELAKE  
CITY OF VILLA PARK  
CITY OF WALNUT  
CITY OF WILLIAMS  
CITY OF WINTERS  
CITY OF WOODLAKE  
CITY OF YREKA  
CITY OF YUCAIPA  
CLEARLAKE OAKS COUNTY WATER DISTRICT  
COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS  
COACHELLA VALLEY PUBLIC CEMETERY DISTRICT  
COAST LIFE SUPPORT DISTRICT  
COLLEGE OF THE CANYONS FOUNDATION

## APPENDIX D

COLUSA COUNTY ONE-STOP PARTNERSHIP  
COLUSA MOSQUITO ABATEMENT DISTRICT  
CONTRA COSTA COUNTY SCHOOLS INSURANCE GROUP  
CONTRA COSTA TRANSPORTATION AUTHORITY  
COOPERATIVE ORGANIZATION FOR THE DEVELOPMENT OF EMPLOYEE SELECTION PROCEDURES  
COPPEROPOLIS FIRE PROTECTION DISTRICT  
CORDOVA RECREATION AND PARK DISTRICT  
COSTA MESA SANITARY DISTRICT  
COUNTY OF ALPINE  
CRESCENT CITY HARBOR DISTRICT  
CRESCENTA VALLEY WATER DISTRICT  
CSAC EXCESS INSURANCE AUTHORITY  
DAIRY COUNCIL OF CALIFORNIA  
DEL PASO MANOR WATER DISTRICT  
DEL PUERTO WATER DISTRICT  
DIXON UNIFIED SCHOOL DISTRICT LIBRARY DISTRICT  
DONALD P AND KATHERINE B LOKER UNIVERSITY STUDENT UNION, INC  
EAST COUNTY FIRE PROTECTION DISTRICT  
EAST QUINCY SERVICES DISTRICT  
EAST SAN GABRIEL VALLEY HUMAN SERVICES CONSORTIUM  
EL DORADO COUNTY TRANSIT AUTHORITY  
EL DORADO COUNTY TRANSPORTATION COMMISSION  
EL DORADO HILLS COMMUNITY SERVICES DISTRICT  
ESPARTO FIRE PROTECTION DISTRICT  
EXETER DISTRICT AMBULANCE  
FAIR OAKS RECREATION & PARK DISTRICT  
FAIR OAKS WATER DISTRICT  
FEATHER RIVER RECREATION AND PARK DISTRICT  
FLORIN RESOURCE CONSERVATION DISTRICT ELK GROVE WATER WORKS  
FOOTHILL MUNICIPAL WATER DISTRICT  
FORT ORD REUSE AUTHORITY  
FRESNO WESTSIDE MOSQUITO ABATEMENT DISTRICT  
FULLERTON CALIFORNIA STATE UNIVERSITY ASSOCIATED STUDENTS  
FULTON EL-CAMINO RECREATION AND PARK DISTRICT  
GLENN COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT  
GOLD RIDGE RESOURCE CONSERVATION DISTRICT  
GOLETA SANITARY DISTRICT  
GOLETA WEST SANITARY DISTRICT  
GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT  
GREATER VALLEJO RECREATION DISTRICT  
GRIDLEY BIGGS CEMETERY DISTRICT  
GROSSMONT -CUYAMACA COMMUNITY COLLEGE DISTRICT AUXILIARY ORGANIZATION  
HAPPY HOMESTEAD CEMETERY DISTRICT  
HAYWARD CALIFORNIA STATE UNIVERSITY, AUXILIARY FOUNDATION, INC.  
HENRY MILLER RECLAMATION DISTRICT NO. 2131  
HOPLAND PUBLIC UTILITY DISTRICT  
HOUSING AUTHORITY OF THE CITY OF SAN LUIS OBISPO  
HOUSING AUTHORITY OF THE COUNTY OF BUTTE  
HOUSING AUTHORITY OF THE COUNTY OF SANTA CRUZ  
HUMAN RIGHTS/FAIR HOUSING COMMISSION OF THE CITY AND COUNTY OF SACRAMENTO  
HUMBOLDT BAY HARBOR RECREATION AND CONSERVATION DISTRICT  
HUMBOLDT BAY MUNICIPAL WATER DISTRICT  
HUMBOLDT COMMUNITY SERVICES DISTRICT  
HUMBOLDT NO. 1 FIRE PROTECTION DISTRICT OF HUMBOLDT COUNTY  
HUMBOLDT STATE COLLEGE UNIVERSITY CENTER  
HUMBOLDT TRANSIT AUTHORITY  
HUMBOLDT WASTE MANAGEMENT AUTHORITY  
INTERGOVERNMENTAL TRAINING AND DEVELOPMENT CENTER  
ISLA VISTA RECREATION AND PARK DISTRICT

## APPENDIX D

JURUPA AREA RECREATION AND PARK DISTRICT  
KINGS COUNTY AREA PUBLIC TRANSIT AGENCY  
KINGS IHSS PUBLIC AUTHORITY  
KINGS MOSQUITO ABATEMENT DISTRICT  
KONOCTI COUNTY WATER DISTRICT  
LAGUNA BEACH CO. WATER DISTRICT  
LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT  
LAKE HEMET MUNICIPAL WATER DISTRICT  
LAKE SHASTINA COMMUNITY SERVICES DISTRICT  
LAKE VALLEY FIRE PROTECTION DISTRICT  
LAKEPORT COUNTY FIRE PROTECTION DISTRICT  
LITTLE LAKE FIRE PROTECTION DISTRICT  
LIVERMORE/AMADOR VALLEY TRANSIT AUTHORITY  
LOCAL AGENCY FORMATION COMMISSION OF MONTEREY COUNTY  
LOCAL GOVERNMENT SERVICES AUTHORITY, JPA.  
LOMPICO COUNTY WATER DISTRICT  
LONG BEACH STATE UNIVERSITY, ASSOCIATED STUDENTS  
LONG BEACH STATE UNIVERSITY, FORTY-NINER SHOPS, INC.  
LOS GATOS-SARATOGA DEPARTMENT OF COMMUNITY EDUCATION AND RECREATION  
LOS OSOS COMMUNITY SERVICES DISTRICT  
LOWER LAKE CEMETERY DISTRICT  
LOWER TULE RIVER IRRIGATION DISTRICT  
MADERA CEMETERY DISTRICT  
MADERA COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT  
MADERA HOUSING AUTHORITY, THE CITY OF  
MAIN SAN GABRIEL BASIN WATERMASTER  
MARIN CHILDREN AND FAMILIES COMMISSION  
MARIN COUNTY HOUSING AUTHORITY  
MARIN COUNTY IN-HOME SUPPORTIVE SERVICES PUBLIC AUTHORITY  
MARYSVILLE CITY  
MAXWELL PUBLIC UTILITY DISTRICT  
MC KINLEYVILLE COMMUNITY SERVICE DISTRICT  
MEEKS BAY FIRE PROTECTION DISTRICT  
MESA CONSOLIDATED WATER DISTRICT  
METROPOLITAN COOPERATIVE LIBRARY SYSTEM  
MID-PENINSULA WATER DISTRICT  
MID-PLACER PUBLIC SCHOOLS TRANSPORTATION AGENCY  
MOKELUMNE RURAL FIRE DISTRICT  
MONTECITO SANITARY DISTRICT OF SANTA BARBARA COUNTY  
MONTECITO WATER DISTRICT  
MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT  
MONTEREY COUNTY WATER RESOURCES AGENCY  
MONTEREY PENINSULA AIRPORT DISTRICT  
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT  
MOULTON-NIGUEL WATER DISTRICT  
MT. SAN ANTONIO COLLEGE ASSOCIATED STUDENTS  
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY  
NEVADA COUNTY LOCAL AGENCY FORMATION COMMISSION  
NEVADA-SIERRA REGIONAL IHSS PUBLIC AUTHORITY  
NEWHALL COUNTY WATER DISTRICT  
NICE COMMUNITY SERVICES DISTRICT  
NORTH BAY COOPERATIVE LIBRARY SYSTEM  
NORTH BAY SCHOOLS INSURANCE AUTHORITY  
NORTH CENTRAL COUNTIES CONSORTIUM  
NORTH COAST RAILROAD AUTHORITY  
NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT  
NORTH COUNTY FIRE PROTECTION DISTRICT OF SAN DIEGO COUNTY  
NORTH STATE COOPERATIVE LIBRARY SYSTEM  
NORTHERN CALIFORNIA SPECIAL DISTRICTS INSURANCE AUTHORITY

## APPENDIX D

NORTHERN SIERRA AIR QUALITY MANAGEMENT DISTRICT  
NOVATO SANITARY DISTRICT  
OAKDALE RURAL FIRE PROTECTION DISTRICT  
OCEANO COMMUNITY SERVICES DISTRICT  
OJAI VALLEY SANITARY DISTRICT  
ORANGE COUNTY TRANSPORTATION COMMISSION  
ORANGE COUNTY VECTOR CONTROL DISTRICT  
ORLAND CEMETERY DISTRICT  
OROVILLE MOSQUITO ABATEMENT DISTRICT  
PAJARO VALLEY PUBLIC CEMETERY DISTRICT  
PAJARO VALLEY WATER MANAGEMENT AGENCY  
PALMDALE WATER DISTRICT  
PALOS VERDES LIBRARY DISTRICT  
PARADISE RECREATION AND PARK DISTRICT  
PASADENA CITY COLLEGE BOOKSTORE  
PENINSULA FIRE DISTRICT  
PICO WATER DISTRICT  
PINE GROVE MOSQUITO ABATEMENT DISTRICT  
PIONEER CEMETERY DISTRICT  
PLACER COUNTY CEMETERY DISTRICT #1  
PLACER COUNTY MOSQUITO ABATEMENT DISTRICT  
PLACER COUNTY RESOURCE CONSERVATION DISTRICT  
PLACER COUNTY TRANSPORTATION COMMISSION  
PLACER HILLS FIRE PROTECTION DISTRICT  
PLEASANT HILL - MARTINEZ JOINT FACILITIES AGENCY  
PLEASANT HILL RECREATION AND PARK DISTRICT  
PLUMAS EUREKA COMMUNITY SERVICES DISTRICT  
PLUMAS LOCAL AGENCY FOUNDATION  
POMERADO CEMETERY DISTRICT  
QUARTZ HILL WATER DISTRICT  
QUINCY COMMUNITY SERVICES DISTRICT  
RANCHO ADOBE FIRE PROTECTION DISTRICT  
RANCHO MURIETA COMMUNITY SERVICES DISTRICT  
RANCHO SANTIAGO COMMUNITY COLLEGE ASSOCIATED STUDENTS  
RECLAMATION DISTRICT # 1000  
RECLAMATION DISTRICT # 1001  
REDEVELOPMENT AGENCY OF THE CITY OF FRESNO  
REGIONAL WATER AUTHORITY  
RINCON DEL DIABLO MUNICIPAL WATER DISTRICT  
RINCON VALLEY FIRE PROTECTION DISTRICT  
RIO LINDA WATER DISTRICT  
RIVERSIDE COUNTY LAW LIBRARY  
SACRAMENTO COUNTY LAW LIBRARY  
SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT  
SACRAMENTO METROPOLITAN CABLETELEVISION COMMISSION  
SACRAMENTO SUBURBAN WATER DISTRICT  
SALIDA FIRE PROTECTION DISTRICT  
SALINAS VALLEY SOLID WASTE AUTHORITY  
SAN BERNARDINO, CALIFORNIA STATE UNIVERSITY, STUDENT UNION  
SAN DIEGO RURAL FIRE PROTECTION DISTRICT  
SAN DIEGO STATE UNIVERSITY ASSOCIATED STUDENTS  
SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY  
SAN FRANCISCO HEALTH AUTHORITY  
SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY  
SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS  
SAN GABRIEL VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT  
SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT  
SAN JOAQUIN COUNTY HOUSING AUTHORITY  
SAN JOAQUIN COUNTY IHSS PUBLIC AUTHORITY



## APPENDIX D

SAN LORENZO VALLEY WATER DISTRICT  
SAN LUIS OBISPO - CAL POLY -- ASSOCIATED STUDENTS, INC.  
SAN LUIS OBISPO COUNCIL OF GOVERNMENTS  
SAN LUIS OBISPO REGIONAL TRANSIT AUTHORITY  
SAN MATEO COUNTY LAW LIBRARY  
SANTA ANA WATERSHED PROJECT AUTHORITY  
SANTA CLARA COUNTY HEALTH AUTHORITY  
SANTA CLARA COUNTY OPEN SPACE AUTHORITY  
SANTA CLARA COUNTY SCHOOLS INSURANCE GROUP  
SANTA CLARITA VALLEY SCHOOL FOOD SERVICES AGENCY  
SANTA CRUZ CONSOLIDATED EMERGENCY COMMUNICATIONS CENTER  
SANTA CRUZ COUNTY LAW LIBRARY  
SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION  
SANTA CRUZ LOCAL AGENCY FORMATION COMMISSION  
SANTA MARIA PUBLIC AIRPORT DISTRICT  
SANTA NELLA COUNTY WATER DISTRICT  
SANTA YNEZ RIVER WATER CONSERVATION DIST., IMPROVEMENT DIST. NO. 1  
SCHOOL RISK AND INSURANCE MANAGEMENT GROUP  
SCHOOLS EXCESS LIABILITY FUND  
SCHOOLS INSURANCE AUTHORITY  
SCOTTS VALLEY FIRE PROTECTION DISTRICT  
SELMA CEMETERY DISTRICT  
SELMA-KINGSBURG-FOWLER COUNTY SANITATION DISTRICT  
SEWER AUTHORITY MID-COASTSIDE  
SHAFTER WASCO IRRIGATION DISTRICT  
SHASTA AREA SAFETY COMMUNICATIONS AGENCY  
SHASTA MOSQUITO AND VECTOR CONTROL DISTRICT  
SHILOH PUBLIC CEMETERY DISTRICT  
SILICON VALLEY ANIMAL CONTROL AUTHORITY  
SOLANO COUNTY MOSQUITO ABATEMENT DISTRICT  
SOLANO COUNTY WATER AGENCY  
SOLANO TRANSPORTATION AUTHORITY  
SONOMA STUDENT UNION CORPORATION  
SOUTH BAY REGIONAL PUBLIC COMMUNICATIONS AUTHORITY  
SOUTH BAYSIDE SYSTEM AUTHORITY  
SOUTH COAST WATER DISTRICT  
SOUTH PLACER FIRE DISTRICT  
SOUTHERN SONOMA COUNTY RESOURCE CONSERVATION DISTRICT  
SOUTHWEST TRANSPORTATION AGENCY  
SPECIAL DISTRICT RISK MANAGEMENT AUTHORITY  
STATE WATER CONTRACTORS  
STEGE SANITARY DISTRICT  
STOCKTON EAST WATER DISTRICT  
SUISUN RESOURCE CONSERVATION DISTRICT  
SUTTER CEMETERY DISTRICT  
SUTTER COUNTY HOUSING AUTHORITY  
THREE VALLEYS MUNICIPAL WATER DISTRICT  
TOWN OF ATHERTON  
TOWN OF LOOMIS  
TOWN OF LOS ALTOS HILLS  
TOWN OF MORAGA  
TOWN OF PARADISE  
TOWN OF PORTOLA VALLEY  
TOWN OF ROSS  
TOWN OF SAN ANSELMO  
TOWN OF TIBURON  
TOWN OF WINDSOR  
TRANSPORTATION AGENCY FOR MONTEREY COUNTY  
TRI-CITY MENTAL HEALTH CENTER

## APPENDIX D

TURLOCK MOSQUITO ABATEMENT DISTRICT  
UPLAND CITY HOUSING AUTHORITY  
VALLEY SPRINGS PUBLIC UTILITY DISTRICT  
VENTURA COLLEGE FOUNDATION  
VENTURA COUNTY SCHOOLS BUSINESS SERVICES AUTHORITY  
VENTURA COUNTY SCHOOLS SELF-FUNDING AUTHORITY  
VENTURA PORT DISTRICT  
VICTOR VALLEY WATER DISTRICT  
WATER FACILITIES AUTHORITY-JOINT POWERS AGENCY  
WEST CITIES COMMUNICATION CENTER  
WEST COUNTY TRANSPORTATION AGENCY  
WEST END COMMUNICATIONS AUTHORITY  
WEST STANISLAUS IRRIGATION DISTRICT  
WEST VALLEY WATER DISTRICT  
WESTBOROUGH WATER DISTRICT  
WESTERN CONTRA COSTA TRANSIT AUTHORITY  
WESTLANDS WATER DISTRICT  
WOODSIDE FIRE PROTECTION DISTRICT  
YOLO COUNTY COMMUNICATIONS EMERGENCY SERVICES AGENCY  
YOLO COUNTY HOUSING AUTHORITY  
YOLO COUNTY IN-HOME SUPPORTIVE SERVICES PUBLIC AUTHORITY  
YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT  
YORBA LINDA WATER DISTRICT  
YUBA COUNTY WATER AGENCY  
YUBA SUTTER TRANSIT AUTHORITY

## APPENDIX E

- GLOSSARY OF ACTUARIAL TERMS



## Glossary of Actuarial Terms

### Accrued Liability

The total dollars needed as of the valuation date to fund all benefits earned in the past for *current* members.

### Actuarial Assumptions

Assumptions made about certain events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability and retirement rates. Economic assumptions include investment return, salary growth and inflation.

### Actuarial Methods

Procedures employed by actuaries to achieve certain goals of a pension plan. These may include things such as funding method, setting the length of time to fund the past service liability and determining the actuarial value of assets.

### Actuarial Valuation

The determination, as of a valuation date of the normal cost, actuarial accrued liability, actuarial value of assets and related actuarial present values for a pension plan. These valuations are performed annually or when an employer is contemplating a change to their plan provisions.

### Actuarial Value of Assets

The actuarial value of assets used for funding purposes is obtained through an asset smoothing technique where investment gains and losses are partially recognized in the year they are incurred, with the remainder recognized in subsequent years.

This method helps to dampen large fluctuations in the employer contribution rate.

### Amortization Bases

Separate payment schedules for different portions of the unfunded liability. The total unfunded liability (or side fund) can be segregated by "cause", creating "bases" and each such base will be separately amortized and paid for over a specific period of time. This can be likened to a home mortgage that has 24 years of remaining payments and a second on that mortgage that has 10 years left. Each base or each mortgage note has its own terms (payment period, principal, etc.)

Generally in an actuarial valuation, the separate bases consist of changes in liability (principal) due to amendments, actuarial assumption changes, or methodology changes and gains and losses. Payment periods are determined by Board policy and vary based on the cause of the change.

### Amortization Period

The number of years required to pay off an amortization base.

### Annual Required Contributions (ARC)

The employer's periodic required annual contributions to a defined benefit pension plan, calculated in accordance with the plan assumptions. The ARC is determined by multiplying the employer contribution rate by the payroll reported to CalPERS for the applicable fiscal year. However, if this contribution is fully prepaid in a lump sum, then the dollar value of the ARC is equal to the Lump Sum Prepayment.

### Class 1 Benefits

Class 1 benefits have been identified to be the more expensive ancillary benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 1 benefit will be responsible for the past service liability associated with such benefit and will be required to pay a surcharge established by the actuary to cover the ongoing cost (normal cost) of the Class 1 benefit.

**Class 2 Benefits**

Class 2 benefits have been identified to be the ancillary benefits providing one-time increases in benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 2 benefit will be responsible for the past service liability associated with such benefit.

**Class 3 Benefits**

Class 3 benefits have been identified to be the less expensive ancillary benefits. Class 3 benefits may vary by rate plan within each risk pool. However, the employer contribution rate will not vary within the risk pool due to the Class 3 benefits.

**Entry Age**

The earliest age at which a plan member begins to accrue benefits under a defined benefit pension Plan or risk pool. In most cases, this is the same as the date of hire.

(The assumed retirement age less the entry age is the amount of time required to fund a member's total benefit. Generally, the older a member is at hire, the greater the entry age normal cost. This is mainly because there is less time to earn investment income to fund the future benefits.)

**Excess Assets**

When a plan or pool's actuarial value of assets is greater than its accrued liability, the difference is the plan or pool's excess assets. A plan with excess assets is said to be overfunded. The result is that the plan or pool can temporarily reduce future contributions.

**Entry Age Normal Cost Method**

An actuarial cost method designed to fund a member's total plan benefit over the course of his or her career. This method is designed to produce stable employer contributions in amounts that increase at the same rate as the employer's payroll (i.e. level % of payroll).

**Fresh Start**

When multiple amortization bases are collapsed into one base and amortized over a new funding period. At CalPERS, fresh starts are used to avoid inconsistencies that would otherwise occur.

**Funded Status**

A measure of how well funded a plan or risk pool is. Or equivalently, how "on track" a plan or risk pool is with respect to assets vs. accrued liabilities. We calculate a funded ratio by dividing the market value of assets by the accrued liabilities. A ratio greater than 100% means the plan or risk pool has more assets than liabilities and a ratio less than 100% means liabilities are greater than assets.

**Normal Cost**

The annual cost of service accrual for the upcoming fiscal year for active employees. The normal cost plus surcharges should be viewed as the long term contribution rate.

**Pension Actuary**

A person who is responsible for the calculations necessary to properly fund a pension plan.

**Prepayment Contribution**

A payment made by the employer to reduce or eliminate the year's required employer contribution.

**Present Value of Benefits**

The total dollars needed as of the valuation date to fund all benefits earned in the past or expected to be earned in the future for current members.

**Risk Pools**

Using the benefit of the law of large numbers, it is a collection of employers for the purpose of sharing risk.

**Rolling Amortization Period**

An amortization period that remains the same each year or does not decline.

**Side Fund**

At the time of joining a risk pool, a side fund was created to account for the difference between the funded status of the pool and the funded status of your plan. Your side fund will be amortized on an annual basis, with the actuarial investment return assumption. This assumption is currently 7.75%. A positive side fund will cause your required employer contribution rate to be reduced by the Amortization of the Side Fund shown in REQUIRED CONTRIBUTIONS. A negative side fund will cause your required employer contribution rate to be increased by the Amortization of the Side Fund. In the absence of subsequent contract amendments or funding changes, the Side Fund will disappear at the end of the amortization period.

**Superfunded**

A condition existing when the actuarial value of assets exceeds the present value of benefits. When this condition exists on a given valuation date for a given plan, employee contributions for the rate year covered by that valuation may be waived.

**Unfunded Liability**

When a plan or pool's actuarial value of assets is less than its accrued liability, the difference is the plan or pool's unfunded liability. The plan or pool will have to temporarily increase contributions.